# THE NEW CASTLE AND FRENCHTOWN TURNPIKE AND RAILROAD COMPANY

## 1809-1838

by

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# PREFACE

When I began my studies two years ago at the Hagley Museum, I found transportation history to be particularly intriguing. Jack C. Potter, my former colleague and now curator of the Bucks County Historical Society, Doylestown, Pennsylvania, informed me that there was a large collection of manuscripts at the Historical Society of Delaware relating to the New Castle and Frenchtown Turnpike and Railroad Company, and urged me to investigate this subject. After reading several brief accounts of the corporation my interest was keenly aroused, because this enterprise had gone through a number of important stages. Beginning as a dirt road used principally for connecting shipping routes on the Delaware River and Chesapeake Bay, the thoroughfare was first improved by two independent turnpike companies. Later the toll road companies merged to form a single firm for constructing one of the first railroads in the United States. Since there was not an accurate or detailed history of either the turnpikes or the railway, I chose this topic for my master's thesis. I originally intended to cover the entire history of the turnpike and railroad companies, but because of the abundance of material for the early years, I decided to terminate the study at 1838. By this time the railroad had

been in operation for five years, but was no longer of major importance, because it had been overshadowed by a rival rail line.

My greatest debt is to the Eleutherian Mills-Hagley Foundation, which made this work possible by granting me a two-year fellowship. I would like to acknowledge the aid given me by the following persons: Dr. Norman B. Wilkinson, Mrs. H. Clay Reed, Mr. Leon de Valinger, Jr., Dr. John A. Munroe, Judge Richard S. Rodney, Miss Mary Hayes, and Mr. Brewster Peabody. Mr. Bayard Roberts, secretary of the Pennsylvania Railroad, was most cooperative in permitting me to use records in possession of that company. Mr. A. V. Marterelli, a member of Mr. Roberts' staff, was especially helpful to me. The staffs of the Historical Society of Delaware, the Delaware State Archives, the Historical Society of Pennsylvania, the Maryland Historical Society and the University of Delaware Memorial Library were always cooperative in fulfilling my many requests. I am especially thankful to Dr. W. David Lewis, who has directed this thesis from the outset. He has patiently read the entire manuscript and made many suggestions and corrections, all of which have been to my advantage. Finally, I would like to thank Mrs. John L. Evans, who has handled the difficult job of typing.

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## SUMMARY

At the beginning of the nineteenth century, travelers faced a difficult task in journeying from Philadelphia on the Delaware River to Baltimore on Chesapeake Bay. The roads were so bad that the trip by land took several days. The all-water route was long and tiresome, for the Delmarva Peninsula was not as yet pierced by a navigable waterway. Most passengers therefore sailed from Philadelphia to New Castle, Delaware, where they took a stage for a short trip across the peninsula to Frenchtown, Maryland, and there they boarded another boat for the remaining passage to Baltimore. Although the road from New Castle to Frenchtown was thus an important connecting link between the Delaware and the Chesapeake, it was merely a crude dirt track, and travel on it was both time-consuming and uncomfortable.

The citizens of New Castle first attempted to improve the route to Frenchtown by organizing two independent turnpike corporations to construct a gravel road across the isthmus. In 1812 the New Castle Turnpike Company completed a road from the Delaware River to Clark's Corner, a distance of less than three miles. Three years later the New Castle and Frenchtown Turnpike Company completed the remaining fifteen miles from Clark's Corner to Frenchtown. Because

their toll roads were strategically located, these two firms were striking exceptions to the majority of American turnpike corporations, for they did not fall into debt and did pay dividends to their stockholders for many years.

In 1829 the Chesapeake and Delaware Canal broke the land barrier between the bays and thereby revolutionized transportation in the area. The turnpike officials knew that they could not compete with this rival, because travel through the canal was easier and cheaper than overland transit by stagecoach. In an effort to offset their competitor, they had begun in 1827 to investigate the possibilities of building a railroad, which was an entirely new mode of communication--there being only a few in England and none in America at the time. At first the New Castle men did not know how railroads were built or how much they cost. In addition, they saw no further than the possibility of laying a track across the peninsula to connect the steamboat routes as the turnpikes had done; they did not realize that railroads could be developed to the extent that they would someday replace steamboats altogether on the Philadelphia-Baltimore run. After first failing to raise the necessary capital, the two turnpike companies agreed to merge in 1830 and formed a single firm for constructing the railway--the New Castle and Frenchtown Turnpike and Railroad Company.

At first the work advanced slowly, but after a group of Philadelphians were elected to the board of directors they gave the enterprise a new driving force, and the railroad was completed by February, 1832. From the outset it competed effectively with the canal for passenger traffic, although the waterway continued to be used more extensively for moving freight. The New Castle and Frenchtown Railroad might have remained an important connecting link between the North and the South, but in 1837 a rival rail line was completed, stretching from Philadelphia to Baltimore. The new all-land approach was far superior to the old steamboat and railroad combination, because it was faster, more efficient, and capable of being used throughout the year. Despite the hopes of its promoters, the New Castle and Frenchtown Railroad was obsolete five years after its completion.

# CHAPTER I

## ROADS, WATERWAYS, AND RAILROADS

In the year 1800 the young republic of the United States, a land of coastal plains, rugged mountain ranges, and vast expanses, vitally needed an efficient system of transporting men, goods, and information through all parts of the country. The Atlantic Ocean and the navigable rivers and streams were the principal highways for traveling Americans; although stage lines and freight lines were known, the roads were so poor that most people preferred to travel by water. Thousands of schooners and sloops plied along the coast and through the bays, sounds, and rivers to an extent that is hard to realize today. Farmers floated their produce down rivers on large wooden flatboats; southern congressmen journeyed to Philadelphia by water.[1] A few long roads led from state to state, such as the Great Southern Road running from Philadelphia to Baltimore and Annapolis; yet this was little more than a dirt path over which a stage crept about thirty miles a day.[2]

The American Indians had blazed the first trails for traveling about the country, and the white men later adopted these tracks as the basis for their roads. The colonists, however, had little knowledge of the fundamental principles

of road building. In 1758 The New American Magazine published some observations on the proper construction of roads, suggesting that a stone foundation be laid when the thoroughfares passed over soft ground, and urging that a layer of gravel be spread over the roadbed to strengthen the surface.[3] Local road builders did not follow such advice. Though they cut down trees to widen the roads and dug up some stumps to allow wagons and carriages to pass more easily, they made no attempts to grade the roads or to dig drainage ditches, and always used natural earth for the roadbed.[4] The heavy rains of autumn and the snows of winter made traveling over such thoroughfares difficult, and during the spring thaws they were impassable.[5]

Why were these wretched roads allowed to exist? The answer is not hard to find. The responsibility for road building and maintenance rested with the local community, which had neither the money nor the laborers to expend on improving roads.[6] The planting and harvesting of crops consumed the time of the able-bodied men during the spring, summer, and fall of each year. In general most American communities were independent villages, where each family raised its own food, sewed its own clothes, built its own home, and supplied many of its own domestic furnishings. Under these conditions long-distance traveling was

unnecessary, and it was not deemed worthwhile to make good roads; the weekly pilgrimage to church was the only regular trip, and occasionally the farmer hauled his grain to the local grist mill.[7] Communities were purposely established near rivers which could be used for journeys to the seacoast cities. When long overland trips had to be made, northerners could wait until winter and use sleds to glide over frozen roads; southerners faced a more difficult problem, but usually managed to haul cotton to navigable streams by the use of mud boats, mules, oxen, or slaves.[8]

On the national level, the history of American transportation during the first half of the nineteenth century is made up of attempts to break through the Appalachian Mountains by establishing roads and waterways to connect the states of the Atlantic Coast with the valleys of the Ohio and the Mississippi. Until 1775 American immigrants had spread up the river valleys as far as the fall line, where they generally stopped. The Appalachians, thirteen hundred miles long and three hundred miles wide, presented a dangerous obstacle to national unity, and many historians agree that the United States could never have been held together without an adequate system of transportation. Shortly after the American Revolution, George Washington wrote that the West, looking toward Spain, was hanging by a thread; he and

others urged the building of national highways that would tie the East and West together.[10]

The Wilderness Road illustrates the importance of connecting links between the two sections. A trail had existed from the headwaters of the Shenandoah and the James rivers to those of the Holston and the Watauga. In 1774-1775 Daniel Boone blazed a path from settlements on these rivers through the Cumberland Gap and across Kentucky to the Falls of the Ohio, at the present site of Louisville. By 1790 Kentucky had 75,000 inhabitants, more than nine-tenths of whom had come over the Wilderness Road. In 1800, after Kentucky had become a state, the population was 220,000, and of this number 150,000 had entered by the Wilderness Road. In spite of this heavy traffic, the route remained up to 1812 much as Boone had traced its course.[11]

In 1808 Albert Gallatin, then Secretary of the Treasury, presented to Congress the first overall plan for improving the nation's transportation system. "The general utility of artificial roads and canals," Gallatin asserted, "is universally admitted."[12] He proposed four major categories of internal improvements: great canals along the Atlantic seaboard, connecting New England with the South; communications between the Atlantic and Western waters; interior canals and roads; and communications between the

Atlantic, the St. Lawrence, and the Great Lakes. Private capitalists, Gallatin believed, could sponsor some of these projects, but because the United States was a large country with a small population, government aid would be necessary.[13]

The federal government first attempted to improve the nation's highways by building the Cumberland Road. When Ohio was admitted to statehood in 1803, it was provided that two per cent of the net proceeds from the sale of public lands should be expended by Congress for roads to and through the state. This provision was designed to provide a fund for a road to the West and to avoid friction with Ohio over the sale of federal lands. After considering a number of possible routes for the road, it was finally decided in 1811 to build the highway from Cumberland, Maryland to Wheeling on the Ohio River. The road, one hundred and thirty miles of stone and gravel, was completed to Wheeling by 1823 at a cost of $1,645,679.20.[14]

While the government was building the Cumberland Road, a strong controversy had arisen as to what role the federal government should play in undertaking internal improvements. Strict constructionists argued that the Constitution did not give Congress the power to assist the states in building roads and canals, and insisted that the Constitution must be amended before the federal government could give aid to

such projects. The failure to amend led to a series of presidential vetoes against bills for internal improvements.[15] In 1817 Congress passed a bill, sponsored by John C. Calhoun and backed by Henry Clay, providing that funds arising from the chartering of the Second Bank of the United States be used for improving communication, but President Madison vetoed the measure as unconstitutional. Later President Monroe opposed the establishment of toll gates on the Cumberland Road, and in the 1830's this thoroughfare was turned over to the states through which it passed.[16] In 1830 Jackson vetoed the Maysville Road Bill, which proposed that the federal government subscribe $150,000 in the stock of a private company for building a sixty-mile turnpike. Since the road was entirely in Kentucky, Jackson pointed out, it was a local project having no relation to the general system of improvements. But other enterprises which were not local in character fared no better: the Louisville and Portland Canal received a pocket veto, and Congress withdrew from the affairs of the Chesapeake and Ohio Canal Company.[17]

Actually the federal government did not completely abandon transportation improvements, for military roads were built through the territories, appropriations were made to improve rivers and harbors, and the army engineers gave valuable aid in surveying many early railroads.[18]

Each administration from Jefferson through Jackson appropriated more money than the preceding one for internal improvements. The real obstacle which defeated a national system of internal improvements was jealousy among states and the conflicting interests of the geographical sections. New Englanders, who had an adequate system of roads, did not want to contribute to the improvement of other areas; the Middle Atlantic States feared the increasing competition of the West; and the South, which needed good roads, became more and more opposed as sectional issues arose and southerners became convinced that roads would help the industrial North more than the agricultural South. The one section constantly supporting federal aid for internal improvement was the West.[19] The major responsibility for improving travel, however, was thrust upon the states and their subdivisions and upon private capitalists.

In their first attempts to improve inland transportation Americans turned their attention to the nation's highways. The science of road building had become widespread in Europe during the latter half of the eighteenth century, especially in England, where turnpike trusts had been formed to build and maintain the principal roads.[20] Turnpikes were highly improved roads with hard surfaces of gravel, stone, or wood, but some had only roadbeds of natural earth.

Parliament chartered groups of private citizens, authorizing them to improve specific roads at their own expense and to secure reimbursement by collecting tolls from persons using these routes. Between 1760 and 1774, Parliament passed four hundred and fifty-three acts creating turnpike companies.[21]

The English example was valuable for America, because the newly-founded state governments did not have enough money to build better roads at the beginning of the nineteenth century. "The heaviest taxes that could have been laid," McMaster noted, "would not have sufficed to cut half the roads or build half the bridges that were needed."[22] Under these circumstances two courses of action were open: the states or lesser governmental authorities could issue bonds, or they could empower private companies to undertake the task. The states chose the latter alternative by chartering corporations to construct turnpikes.[23]

The formation of corporations for business purposes had been practically unknown in America previous to the Revolution, and turnpike companies were among the leading pioneers in this new field of business organization.[24] In the case of turnpike companies the act of incorporation was absolutely necessary. The building of roads demanded large amounts of capital in excess of anything known in private affairs; there had to be a permanent form of organization

for the company to insure that the business would be carried out properly; the company had to be assured the right of eminent domain; and it was essential to have the powers to build a road for the public and to collect tolls for its use. These and similar privileges could only be obtained through charters granted by state governments.[25]

The first fruitful result of an American turnpike endeavor was the Philadelphia and Lancaster Turnpike Company, chartered in 1792 to build a road from Philadelphia to Lancaster, Pennsylvania. The road, completed in 1794, was an important highway between the East and the West, and its success stimulated similar enterprises.[26] Although numerous companies were chartered during the next twenty years, the majority of American turnpikes were not constructed until after the War of 1812. During the war, when the British controlled the seas, practically all supplies had to be moved by overland routes. The limited transportation facilities hindered American troops in moving from one part of the country to another, and merchants charged excessively high prices for the most common goods because of the difficulty of transporting them.[27] A wagon, loaded with cotton goods and drawn by four horses, took seventy-five days to creep from Worcester, Massachusetts to Charleston, South Carolina. Such conditions aroused the public to the need for more

internal improvements. Agitation also arose because of improved commercial conditions following the war: farmers had to get their accumulated surplus crops to markets, and merchants and manufacturers wanted to sell their products to the interior. Many new turnpikes were constructed in response to these demands.[28]

Private capitalists built almost every American turnpike; they took their own risks, derived their own profits, and did not depend upon local governments for financial aid.[29] Yet there were no large amounts of capital in early America, and the few wealthy men were unwilling to invest their savings in enterprises from which returns were to be slow or even uncertain.[30] The majority of turnpikes were therefore small both in capitalization and in mileage; many were not more than ten miles long, and the largest ones rarely exceeded one hundred miles. In general the turnpike stock was widely distributed in order to lessen the evils expected of corporations, to prevent speculation, and to reduce the risk taken by each stockholder; most investors held only one or two shares of stock. Joseph A. Durrenberger, an authority on early turnpike development, has concluded that the majority of those who put money into these roads were not interested in making a profit on their investment, for they believed they were contributing to

public improvements that would pay their chief returns by improving commerce, increasing land values, and stimulating manufacturing. He based his conclusion upon the wide distribution of stock in the companies as well as upon the character and interests of the persons who subscribed; with but a few exceptions, the majority of the persons who held stock in the turnpikes were either farmers, land speculators, merchants, or individuals and firms interested in commerce.[31]

The turnpike movement stimulated bridge-building. During the colonial era travelers crossed rivers on ferries, but this was slow and cumbersome, and floating ice made such crossings dangerous in the winter. Carpenters and masons built the first American bridges of wood for horse-drawn carts. Local capitalists financed these projects, which frequently proved to be profitable investments, for many bridges continued to be privately owned and operated throughout the nineteenth century and into the twentieth.[32]

Most turnpikes, however, were financial failures, and by the late 1820's many of them were being abandoned. As business enterprises they were frequently poorly organized and managed; yet little more could have been expected from stockholders and officers who were chiefly farmers and country merchants. The cost of constructing most turnpikes was much greater than had been expected, and because large

debts were frequently incurred in repairing and maintaining the roads, the companies rarely paid dividends to their investors. In New England only five or six out of two hundred and thirty turnpikes paid barely satisfactory dividends, and in the Middle Atlantic States only a few of the best located turnpikes paid from one to eight per cent in their most prosperous years. The companies charged extremely high tolls in order to meet their mounting expenses, and the turnpikes ultimately failed because they did not provide a cheap means of transportation. Their decline can be ascribed only in small part to the competition of canals and railroads, for many had failed before these new agencies arose, and those which did last after 1830 had already proved that they were financially unprofitable.[33]

As turnpikes were spreading through many states, steamboats were introduced upon American rivers. In the colonial era the greatest obstacle to profitable river navigation had been the slow and costly journey upstream. The steamboat solved this problem. A few far-sighted Americans, such as Oliver Evans and John Fitch, had experimented with steamboats during the closing years of the eighteenth century, but it was not until 1807 that the first commercially feasible steamboat was demonstrated by Robert Fulton on the Hudson.[34] From the close of the War of 1812 until the

beginning of the Civil War, these vessels were the most valuable mode of transportation in the country, and turnpikes, canals, and early railroads generally served as feeders for them rather than as competitors. Credit is given to the railroads for opening the West, but it was steamboats out of Pittsburgh that opened the Ohio and Mississippi river valleys, and on the eastern rivers and canals they greatly facilitated the movement of passengers and goods.[35]

Since steamboats traveled on rivers, they did not incur the expense of building and maintaining rights-of-way, and men entered this business with small amounts of capital. In the West, on the Ohio and Mississippi, where most steamboats cost about $20,000, private individuals often controlled a single line. The value of many large eastern vessels exceeded $60,000, and here business corporations owned and operated most steamboats.[36]

The federal and state governments did little to aid steamboat transportation. Some states chartered private companies to improve internal waterways by deepening the rivers and removing obstacles from their courses.[37] On the other hand, steamboats were among the first transportation agencies to be regulated by the Federal government. Because there were many accidents among the early steamboats,

especially those resulting from boiler explosions, the public demanded a more effective system of regulation. In 1838 Congress attempted to regulate boats carrying passengers, but the act had few requirements, and there were no provisions for enforcing it. As accidents continued to increase, the public demanded stronger regulation. In 1852 Congress finally passed a steamboat act which clearly defined how such vessels were to be constructed, equipped, and operated, and prescribed measures for preventing fires and collisions. A competent group of inspectors enforced the new regulations.[38]

Steamboats were ultimately defeated by the railroads, which were faster, more regular, more dependable, and more flexible. Before the Civil War the maximum speed of steamboats was usually not more than fifteen miles an hour, whereas railroads could travel thirty to forty-five miles an hour by the 1850's. Railroads operated all year round, but in the winters the rivers were often frozen and during the summers droughts sometimes occurred. The position of a river was fixed, but railroads could be laid at the most convenient routes to attract commerce, and spurs, sidings, and loading platforms helped them to take much business away from the steamboat lines.[39]

While America was struggling through the pioneer stages of experimenting with turnpikes and steamboats, England was enjoying a superior transportation system based upon canals. Since 1765, when the Duke of Bridgewater constructed the first commercially successful canal, these waterways had spread throughout England. The British canals were the lifelines of that nation's industrial revolution, for over them farmers and merchants shipped bulky agricultural goods and manufactured products to all parts of the country.[40] Why had this example not been followed in America? In the first place, canal construction required more money than Americans had or were willing to invest; in the second, canal engineering was almost completely unknown in America.[41]

The completion of the Erie Canal in 1825 initiated the canal era in the United States. This channel, the longest in the world up to that time, cut through central New York connecting Lake Erie with the Hudson River. As the valuable farm products of the newly-settled Great Lakes area began to pour through the Erie Canal and down the Hudson into New York City, other eastern municipalities became alarmed over New York's success, and such cities as Philadelphia and Baltimore built canals to the West.[42] Without the commercial rivalries existing between various cities,

many canals would never have been constructed.[43] In general, three major types of canals were dug: some improved transportation between the upcountry and tidewater in the Atlantic Coast states; others linked the seacoast with the Ohio Valley; and in the West a system of canals connected the Ohio and the Mississippi systems with the Great Lakes.[44]

Canal financing was far different from that of either the turnpikes or the steamboat companies. It required several hundred thousand dollars to construct the longest turnpike, but the smallest canals needed a million dollars, and the construction of larger ones cost from five to ten times that amount. Since private capitalists did not have this much money, state governments financed many American canals; some states actually built and operated their own waterways, and others gave liberal assistance to private companies.[45] The federal government did its part by appropriating over four million acres of public domain to canal projects in Ohio, Michigan, Indiana, and Illinois, and by subscribing some $3,000,000 in the stock of various companies.[46]

The canal era was short-lived in America, reaching its height in 1840, fifteen years after it had begun. The enthusiasm that had been so quickly engendered by the success of the Erie Canal was just as rapidly stifled by the

depression of 1837. The cost of constructing canals far exceeded expectations, and the tolls frequently fell short of what had been anticipated. Companies often sank into serious debts from the high costs of maintaining and repairing canals; it was difficult to keep the banks tight and the channels deep, and floods posed a serious problem. A single inundation could cause $100,000 in damages. Because of droughts and floods, the amount of business on canals constantly varied, and many canals, both publicly and privately owned, suffered from poor management. Finally, it was the misfortune of the canals to become obsolete before they were well established, for railroads had the same advantages over the canals as they possessed over steamboats.[47] If American canal construction had begun eighty years earlier, as it had in England, canals would have played a far more important part in the economic history of the United States.

The railroad, the most revolutionary means of transportation used in the nineteenth century, had been dreamed of and experimented with for many years before it was developed. In America, Oliver Evans demonstrated a steam-driven land carriage in 1804, but he could find no financiers willing to invest in his project.[48] John Stevens, after experimenting with steam locomotives for many years, became exasperated when he could not convince others of the

usefulness of railroads; to prove himself, he built a small narrow-gauge track on which he ran his own locomotive to the amazement of those who saw it. Although this test was not widely known, it did convince a small group of men that railroads would someday be valuable.[49]

The Pennsylvania Society for the Promotion of Internal Improvements made the first real efforts to encourage railroad construction in the United States by sending William Strickland to England in 1825 to collect information relating to canals, roads, railways, bridges, and steam engines. The Society urged Strickland to observe carefully the methods of constructing railroad tracks and steam locomotives, for although the practical value of railroads was recognized, nothing was known of their construction or costs.[50] Strickland published the results of his investigation in 1826 in a volume entitled Reports on Canals, Railways, Roads, and Other Subjects. Clearly written and well illustrated, this work helped to enkindle enthusiasm for railroad building in the United States. It showed for the first time in America how railroads were to be built and equipped; it was practical and furnished a basis for action.[51]

At the beginning of the railroad era many people did not understand what a railroad actually was, because they believed the new carriers would be similar to turnpikes and

canals. Many men could not imagine a single company owning both the tracks and the cars, for they thought that any person should have the right to drive his own carriage or wagon over the tracks after he had paid the required toll.[52] Because the railroads controlled the rails and carriages, some people became convinced that they were monopolistic. The public was therefore often hostile and suspicious toward early railroads, and sometimes it required several years of actual experience with privately-owned vehicles to convince people that the tracks and the cars were inseparable parts of one mechanism and could not be operated successfully under separate control.[53]

Were the railroads to carry both freight and passengers? Were they to compete with canals, or were they to serve merely as feeders for the waterways? Some early railroad investors planned to haul only freight for short distances over the roads; others wanted to concentrate on passenger service and leave the bulky freight for the canals. Both views were altered when the railroads began to operate. Passenger service steadily mounted, and as the railroads became better developed, more and more freight glided over the iron rails.[54] The newly-founded canal companies fought the railroads bitterly by arguing that the latter were to be mere adjuncts for canals, but they were waging a losing

battle. The railroads quickly proved their superiority.[55]

Between 1825 and 1830 Englishmen and Americans began to build railroads. The Stockton and Darlington, the first successful English railroad, began operations in 1825 with horse-drawn carriages. The Liverpool and Manchester Railroad was the first English enterprise designed specifically for steam locomotives, and by 1830 the steam engines of George Stephenson were hauling passengers and freight over the line.[56] In America the year 1827 marked the beginning of the railroad age, for in that year Maryland chartered the Baltimore and Ohio Railroad Company and South Carolina incorporated the South Carolina Canal and Railroad Company. Within two years the Carolina Company had made steady progress in constructing a track from Charleston toward Hamburg on the Savannah River, and a steam locomotive was running on the completed part of the track.[57]

By 1830 England and America stood on the threshold of the railroad age. Neither possessed an overwhelming advantage; both knew of the railed track and of the steam engine. Yet railroads developed far more rapidly in America than they did in England. Why? There was a more urgent need for railroads in the United States because of the size of the country and the vast expanses of unsettled areas. In the New World there was an abundance of cheap land and

lumber, as well as freedom from such Old World obstacles as restrictive boundaries, custom barriers, entrenched monopolies, and long-established customs and prejudices. American engineers, who were more willing to break with tradition, made daring innovations in overcoming many technical problems of railroad construction.[58]

During their first two decades American railroads were small, local affairs that were rarely more than fifty miles long. A few long railroads, such as the Erie, the Baltimore and Ohio, and the Illinois Central, had been constructed by a single company, but they were exceptions. More typical of the early American companies were the seven independent railroads between Albany and Buffalo which eventually combined to form the nucleus of the New York Central Railroad Company.[59]

Railroad promoters were seriously plagued by the scarcity of capital in America. Private citizens contributed heavily to many railroads, especially in the initial stock subscriptions.[60] Cochran and Miller concluded that "more than anyone else, the railroad promoter attracted the savings of American widows, doctors, poets, merchants, manufacturers, bankers, and shippers and tied the nation to his fortune."[61] It is unknown how much of their savings private citizens did invest, but it is certain that if railroads had

relied exclusively on private capital they would never have advanced as rapidly as they did. Individual Americans simply did not have that much money.[62]

The bitter commercial rivalries among eastern cities contributed heavily to the construction of many railroads. Businessmen, bankers, and municipal governments of many cities financed railroads that were designed to cut into the rich farming areas of the Piedmont region and into newly-settled states beyond the Appalachians. These city struggles, which had already played an important role in the rapid expansion of canals, became even more intense after the rise of the railroads, for the latter were more efficient and could tap many areas which the canals had been unable to reach.[63]

State governments encouraged railroad building by putting liberal provisions in the company charters, such as the right of eminent domain; freedom from restraint of the form and amount of securities; monopoly privileges; exemption, in whole or in part, from taxes; and lottery privileges.[64] Massachusetts, Pennsylvania, and Virginia actually built railroads when private capital was not forthcoming.[65] The states made their most important contribution by giving financial aid to private companies; in 1838 the state debts, amounting to $43,000,000, were largely attributable to

money invested in railroad companies or loaned to them.[66]

Some railroad promoters attracted foreign capital to their enterprises by selling stock certificates or issuing bonds. Foreign capital, however, was not widely employed, and by the Civil War foreign investors had purchased only about three per cent of all American railroad stock.[67] Some companies issued stock certificates in place of money, using them as securities for bank loans or issuing them to construction companies and landholders in payment for rights-of-way.[68]

Although the federal government had largely withdrawn from the field of internal improvements by 1830, it did encourage railroad construction indirectly. The scarcity of trained engineers in America made it difficult for many canal and railroad companies to obtain adequate surveys and advice on overcoming technical problems. Congress attempted to alleviate this difficulty in 1824 by passing an act empowering the President to order surveys "of such roads and canals as he may deem of national importance."[69] This measure was repealed in 1838, but at least sixty-one railroad surveys were made by the federal government at an estimated cost of $75,000.[70] Congress also aided railroad companies in securing iron. American iron manufacturers, protected against foreign competition by a high tariff, could not

supply iron as abundantly or as cheaply as the railroads needed it; in 1832 Congress therefore reduced the duty on this metal and granted complete drawbacks on iron imported for railway construction. From this time until 1843, when the act was repealed, Congress saved almost $6,000,000 for the railroads.[71] However, the federal government did not appropriate any money for the railroads prior to 1850.[72]

There was almost no governmental regulation of early American railroads, possibly because of general inexperience with this new method of transportation.[73] Unfortunately, many of the first railroads were built without systematic experimentation, control, or uniformity of construction, and many were built with more attention to cheapness than to efficiency and safety.[74] In many cases contractors sank large granite blocks into the ground and fastened upon them long, wooden stringers, covered with thin, narrow strips of iron; the center of the track was a path upon which the horses ran in drawing the cars. There were many defects in this system: the blocks shifted when it rained, cracked when it was cold, and the track became uneven. When the iron straps tore loose from the stringers, they frequently ripped through the bottom of passing cars.[75] American engineers overcame these and other difficulties as they became more experienced with railroad construction during

the 1830's and 1840's.

Although American railroads were still in their infancy by 1840, their superiority over other means of transportation was generally recognized, and 3,328 miles of track had already been laid.[76] Railroads would continue to expand throughout the nineteenth century and into the twentieth, long after the turnpikes, canals, and even the steamboats had sunk into disuse. Yet all of these modes of transport helped the United States achieve political unity and economic growth from 1815 to 1850. Because of the improved transportation facilities, the different areas of the country became economically interdependent and therefore more firmly united. It is true that before 1850 the transportation companies did not pay attractive dividends, but the roads, canals, and railroads brought immeasurable indirect benefits: consumers got more for their money; farmers, manufacturers, and mine owners received higher prices for their goods; real estate values mounted; and government revenues rose.[77] The money paid to canal and railroad laborers went to markets to buy the produce of American farms and mills. A great demand arose for picks, shovels, sleepers, steel rails, engines, bridgework, culverts and many other commodities used in construction. American industries expanded to meet these new demands.[78]

Having described new transportation methods and assessed their importance, we shall now turn our attention to a small geographic area in which a turnpike, a railroad, a canal, and steamboats played contributory roles in revolutionizing American economic life.

## CHAPTER II

## TURNPIKES ACROSS THE PENINSULA

Across the narrow isthmus between Chesapeake Bay and Delaware Bay ran an important thoroughfare that had been a connecting link between the North and South since early colonial days.[1] From Philadelphia, travelers sailed down the Delaware River to New Castle, Delaware, where they took carriages and wagons for a jolting seventeen-mile trip over a crude dirt road to Frenchtown, Maryland, on the Elk River; here they again boarded a boat for the remainder of the journey to Baltimore.[2] The entire trip, taking over twenty-four hours, was long and hard, but there was no better way. It took several days to make the journey by land, but no stream pierced the isthmus through which vessels could pass.

The route became increasingly important during the late eighteenth century. A businessman named Joseph Tatlow established a line of stages between New Castle and Frenchtown in 1775, and at the same time began to run daily packets from Philadelphia to New Castle. In addition, a complementary line was begun on the Chesapeake between Frenchtown and Baltimore.[3] So popular was the new line of packets and stages that New Castle came to rival Wilmington as a port.[4] Vessels bound for Philadelphia docked at New

Castle when part of their cargo was to be sent across the Delmarva Peninsula and down to Baltimore; Irish immigrants, who came to America to help supply the labor shortage, were often unloaded there; and ships from Philadelphia stopped at the little Delaware port to take in supplies of poultry and vegetables before sailing for the open sea.[5] After the American Revolution New Castle became an indispensable stopping place on the usual road between the cities of New York and Philadelphia and the states of the South. When the federal government was removed to Washington in 1800, travel through the town on the Delaware became even more important.[6]

In 1806, William McDonald and Andrew Henderson, two Maryland capitalists, entered the packet business on a much larger scale than any of their predecessors by employing four packets on the Chesapeake and three on the Delaware, and connected their boats by a line of stages running between Frenchtown and New Castle.[7] This venture was successful; during the first year its income from freight and passenger service totaled over $30,000, half of this sum coming from land carriage.[8] The success of McDonald and Henderson stirred another group of entrepreneurs, led by Edward Trippe, to found a rival line which operated stages by way of Courthouse Point on the Elk River to Port Penn on the Delaware.[9] By 1808 the two lines together netted

$50,000, but each posed so serious a threat to the other that within a few years they consolidated to form a new organization, the Union Line.[10] During the next three decades this concern would play a leading role in revolutionizing the transportation facilities of the area, not only by operating steamboats but also by influencing the construction of a turnpike and a railroad. Further South, a third company conducted a line of stages across the peninsula from Appoquinimink Creek to the Sassafras River; this route, which was shorter by land, was used chiefly for moving heavy goods, and earned a yearly income of $12,000.[11]

Despite the heavy traffic across the peninsula the roads were as poor as those in other parts of the country, if not actually worse. Because there were many navigable streams and no large cities to be connected, Delawareans spent very little money on improving their roads.[12] Alexandre Cardon, a Wilmington tanner, sometimes had hides shipped from Baltimore to Frenchtown and then hauled across the peninsula, but the charge for the overland trip--eight cents per mile--was so high that Cardon concluded it would be cheaper to ship the hides an extra three hundred miles by sea than to take them by land for even such a short distance.[13]

Demands soon arose for the thoroughfare from Frenchtown to New Castle to be improved. Many residents of Cecil County, Maryland, petitioned the county court in 1794 and 1795, asking that the justices appoint commissioners to improve the road. Although the route played a vital part in the commerce of Baltimore and Philadelphia, they noted, it was "very crooked and in extreme bad repair."[14] This plea went unheeded, but within a few years a strong enthusiasm was enkindled for digging a waterway to connect the two bays, and between 1799 and 1801 the legislatures of Maryland, Delaware, and Pennsylvania chartered the Chesapeake and Delaware Canal Company to undertake such a project. This corporation actually raised a large amount of capital and began construction, but the enterprise had to be abandoned in 1805 because of lack of funds and was not revived for almost twenty years.[15] After the failure to dig a canal the road commissioners of New Castle and Cecil counties received authority to lay out an improved road from New Castle to Frenchtown. If this was actually done, it undoubtedly facilitated travel; but since only a dirt track was contemplated, more improvements were needed.[16] Critics of the existing route urged that a turnpike be built across the peninsula, some believing that the best possible location for the highway would be from Port Penn to Courthouse Point. "This road would perhaps be attended with less

expense and more importance in the public," a "Friend of the People" wrote in the American Watchman, "than any improvement in the United States of an equal extent."[17]

The invention of the steamboat gave an added stimulant to building a better road across the isthmus. In December of 1810 John Stevens published a number of articles proposing that a line of steamboats and stages be set up between Baltimore and Philadelphia. Steamboats would greatly reduce the travel time between the two bays, and the owners of the boats could be assured of netting handsome profits; if the company operated three boats, Stevens estimated, it would produce a clear annual profit of $20,000.[18] Since the steamboat routes would have to be connected by a good road, Stevens advocated that a turnpike be constructed from Wilmington to Elkton.

> The transportation of goods between Philadelphia and Baltimore is at present very considerable, and with the increase of population in the western country, must necessarily increase rapidly. But, should a good turnpike road be formed between Wilmington and Elkton, the present expense of land carriage might be considerably reduced and the whole business would of course be directed into the steamboat's line.[19]

The time was ripe for such an undertaking by 1810. Baltimore had become the third largest city in the country and was continuing to grow rapidly.[20] Philadelphia, the

second largest city, was especially interested in schemes that would bring the valuable products of the Susquehanna Valley to the Delaware River; perhaps a good turnpike would divert some of the Susquehanna traffic across the Delmarva Peninsula and up the Delaware to the Quaker city.[21] General interest in turnpikes was also mounting in Delaware. The Wilmington newspapers strongly supported the movement for internal improvements throughout the country, and several turnpikes had been chartered in Delaware, although none had been completed.[22] Since Maryland's first successful turnpike company had been chartered in 1805, there had been mounting agitation for similar enterprises to be undertaken.[23]

A group of New Castle men took the initiative in building a turnpike across the peninsula by securing a charter from the Delaware Legislature in January of 1809 to construct a highway from Clark's Corner to the Maryland state line in the general direction of Frenchtown.[24] Clark's Corner was located about two miles from the town of New Castle, where the State Road--formerly the King's Highway--intersected the Wilmington Bridge Road; it was an important intersection because each year many Wilmingtonians traveled to Clark's Corner and then into New Castle on their way to the county courts.[25] One year later the Maryland Legislature granted a similar charter authorizing the company to

build a road from Frenchtown to the Maryland line, where it would connect with the proposed road from Clark's Corner.[26] The act of incorporation appointed a group of commissioners to open the company's books for stock subscription, after first advertising the time and place of the sale in the local newspapers. Each share of stock was to sell for $50; an initial down payment of $10 per share was required; and the company could not be organized until $30,000 had been subscribed.[27]

Until the War of 1812 American capital had been chiefly employed in such enterprises as commerce, banking, and, to a small extent, manufacturing; investors had generally been unwilling to risk their money in new and unproved projects.[28] State legislatures therefore granted liberal concessions to turnpike companies to encourage investment in them. The New Castle and Frenchtown Turnpike Company benefited from this approach. It received the right of eminent domain to insure the selection of the most advantageous route, and to secure an adequate supply of materials for building the road it was empowered to take stone, gravel, earth, and timber from adjacent lands, subject only to paying a just price for all damages.[29]

Despite these encouraging grants and the need for a good road across the peninsula, the commissioners were

unable to sell $30,000 worth of capital stock, and the company did not become officially organized. The charter expired by 1813, because the law of incorporation specified that if the work did not begin within three years all the privileges granted to the company would be withdrawn.[30] A number of factors accounted for the early failure: the price of $50 per share of stock was more than many people were willing or able to risk at the time, and the requirement that the capital be a minimum of $30,000 was entirely too high. Many potential investors must have been influenced by one section of the Delaware law, which provided that if the road were completed the state could assume ownership of it anytime after 1831; with only the Union Line's packet boats conveying passengers to and from New Castle and Frenchtown there was no guarantee that the enterprise would be sufficiently profitable to repay the original investment by that year.[31]

The citizens of New Castle did not give up after their first unsuccessful attempt to construct a turnpike. In 1811, the Delaware Legislature chartered the New Castle Turnpike Company to build a road from the intersection of Delaware and Union Streets in New Castle to Clark's Corner.[32] The new organization had all the privileges that had been granted to the Frenchtown Company, but its stock was to sell

for only $25 a share and it could become incorporated when $4,000 worth of stock had been subscribed.[33] Two provisions, however, made the charter of the new company unique. With an eye to future possibilities, the lawmakers provided that the road could be transferred to the New Castle and Frenchtown Turnpike Company if the latter ever became incorporated. In order to complete the transaction, the Frenchtown Company would have to repay the New Castle organization the cost of constructing the road, after which the Act of 1811 would cease to have any power, and the whole thoroughfare from New Castle to Frenchtown would be considered a single turnpike.[34] If the Frenchtown Company did not wish to take advantage of this option, the road commissioners of New Castle Hundred or the inhabitants of the town of New Castle could purchase the road by paying the New Castle Company one half of the sum expended on the thoroughfare five years after the latter firm had begun to collect tolls, and the other half after the company had collected tolls for another five years.[35]

The commissioners had no trouble raising the $4,000 needed for incorporating the turnpike venture. By April 8, 1811, two weeks before the books were to be officially opened, $7,250 had been subscribed. Fifty-six citizens of New Castle each purchased five shares of stock; Hugh W.

Ritchie, the one exception, bought ten shares.[36] These stockholders were not primarily interested in making a profit on their investments. Since each one subscribed a small, equal number of shares, it appears that they were providing a public service which was designed to encourage the trade and commerce of their town. It was important that the route to Clark's Corner be improved, since many people used it each year in traveling between Wilmington and New Castle. If the road were completed that far, there was also a possibility that it would encourage the New Castle and Frenchtown Turnpike Company to continue it all the way to Frenchtown. The prospects of making a profit were certainly discouraged by the fact that the Frenchtown Company, the road commissioners of New Castle Hundred, and the inhabitants of New Castle all had the power to purchase the road.

The New Castle Turnpike Company became officially organized in early April of 1811, when the stockholders elected Kensey Johns president, chose John Crown, Benjamin Marley, Charles Thomas, and Richard Sexton to be managers, and appointed John Janvier treasurer.[37] Little is known of the detailed operations of the corporation, because its minute books have not survived; only an account book remains to provide part of its history. It would be fair to deduce,

however, that the general methods of constructing the road, of making necessary repairs, and of overcoming various financial problems were similar to those of the New Castle and Frenchtown Turnpike Company, which will hereafter be related.

The construction of the road was under way by August of 1811 and continued into the following year, the total cost of the work coming to approximately $4,000. From time to time the managers called in the installments due on the stock, but the payments were not uniform, because the money was collected at such times and in such amounts as were needed to meet specific bills.[38] The turnpike must have been completed in the late summer or early fall of 1812, for by the following February John Janvier reported that $558.94 had been collected in tolls, and the officers declared two dividends of thirty cents on 280 shares of stock--one up to August 1, 1812, and another up to February 1, 1813.[39] Although the exact sources of the tolls are unknown, it is evident that private citizens as well as the stages and wagons of the Union Line were frequently using the road. The company maintained a steady and prosperous business during the remainder of the year; by the end of July the toll gatherers had collected $461.49, and the directors ordered that a dividend of $1.62 a share be paid on 185 units of stock.[40]

These early successes encouraged the corporation to expand its operations. In February, 1814, the Delaware Legislature empowered the New Castle Turnpike Company to occupy and reconstruct the Newport Road from the southern abutment of the Newport Bridge to its intersection with the New Castle Turnpike at Clark's Corner.[41] The new act permitted the company to increase its capital stock if necessary, but was identical in most respects to the Act of 1811; once again the road commissioners of New Castle Hundred received authority to purchase the thoroughfare ten years after its completion. Although the company was in sound financial condition to begin its expansion in 1814, the stockholders did not decide to increase the capital to build the new road until 1816, when an additional $6,250 was subscribed. The Newport Bridge Company bought the majority of the added stock, 165 shares; in addition, James Couper subscribed eleven units, Richard Sexton purchased ten, and James R. Black and James Rogers each bought thirty-two.[42] Sexton supervised the construction of the new road, and received $6,500 from the company upon its completion in September of 1816. Out of this sum he paid wages to his workmen and purchased the necessary building materials. Evidently the new construction did not force the company into debt, for although there was not a large increase in the tolls reported by September, 1816, the officers declared

a dividend of 70¢ per unit on 545 shares of stock.[43]

Well before the extension to Newport had been undertaken, important developments had occurred to expedite the old idea of building a road across the peninsula. After the New Castle Turnpike had been completed to Clark's Corner and opened to the public in 1812, interest was revived in the Frenchtown Company. In that same year, the proprietors of the Union Line decided to replace their packets with steamboats. Edward Trippe, a personal acquaintance of Robert Fulton, had become an enthusiastic supporter of steamboats after seeing Fulton's Clermont in operation on the Hudson. He soon convinced his Union Line associates, William McDonald and Andrew Henderson, that steam-driven vessels could be run profitably, and they agreed to have one constructed. William Flanigan, who owned a small shipyard in Baltimore, directed the work, and on June 21, 1813, the Chesapeake, the first steamboat on the Chesapeake Bay, made its initial trip from Baltimore to Frenchtown. The cost of construction totaled $40,000, but it was a wise investment, for in its first year of operation the Chesapeake netted its owners a dividend of 40 per cent.[44] The cost of building and operating steamboats, however, greatly exceeded the expenses of running a packet line, and the firm needed more money. Since the Union Line was not a

chartered company, it could not increase its capital stock. Henderson, McDonald, and Trippe therefore enlarged the number of partners, and John and Thomas Janvier of New Castle soon invested a large sum of money in the steamboat line.[45]

The Union Line proprietors understandably wanted a better road to be built across the peninsula to connect their steamboats, and believed that the best possible route would be from New Castle to Frenchtown. Accordingly they began to urge some of the wealthier and more influential citizens of New Castle to have the New Castle and Frenchtown Turnpike Company rechartered and to lay out a toll road from Clark's Corner to Frenchtown. They pointed out that the steamboats would bring more passengers and larger quantities of freight to New Castle and Frenchtown than the packets had ever done, and would thereby insure the success of the turnpike.[47] These arguments were convincing, and the commissioners of the Frenchtown Turnpike Company succeeded in persuading the legislatures of Delaware and Maryland to pass a supplementary act in January of 1813. This revised the original charter and extended the length of time for completing the road. In view of the earlier failure the new act provided that each share of stock was to sell for $25 and permitted the company to be incorporated when $12,500 worth of stock had been sold.[47] Within a

month after the passage of the supplement, the money needed for incorporating the company had been raised.

There are a number of reasons why the stock subscription succeeded in 1813. The success of the New Castle Turnpike Company had undoubtedly set a valuable example. The hope of increasing the trade, commerce, and land values of the country through which the road would pass also encouraged investments. The most important factor, however, was the introduction of steamboats by the Union Line. Since the expense of building and maintaining the new highway would greatly exceed that of the little road from New Castle to Clark's Corner, the stockholders wanted to be sure that they would receive a return on their investments. They believed that their profits would come from the passengers and freight hauled by the steamboat line, and many of them would never have risked their money in the turnpike if the owners of the Union Line had not assured them that the turnpike would be a profitable enterprise.[48] Little did they suspect that the Union Line would someday threaten the very existence of the turnpike company, and that the turnpike would always be at the mercy of the steamboats.

After the company had been incorporated, the stockholders met to elect officers. Kensey Johns, who headed the New Castle Turnpike Company, was also elected president

of the Frenchtown organization. The directors were John Janvier, Levi Boulden, Hugh Gemmel, and John Crow; Thomas Janvier was appointed treasurer.[49] Although the majority of the stock in both turnpike companies was held by the residents of New Castle, and although some men were officers in both corporations, the two firms did not merge; each managed its own affairs.

Construction was soon under way. In April of 1813 John Crow began surveying the best possible route for the road, combining the shortest distance with the most favorable topography.[50] The road construction followed closely on his heels; as soon as each two-mile section had been surveyed, building operations were begun. The company's managers and stockholders supervised the work on the various sections: Kensey Johns and John Crow, for example, were to contract for making one-half mile of the pike from the Isaac Granthem Road in a southwesterly direction, receiving authority to purchase the necessary materials and employ laborers to level the roadbed, spread gravel, and dig ditches.[51] Legal contracts were drawn up between the company and various contractors for building certain sections of the road. Hugh Gemmel, for example, was to build from the Red Lion Road to the Bear Tavern by May 1, 1814, for which he was to be paid $280 for each 40 rods he completed.

The exact materials and the amounts to be used in making the road were specified in the contract. If Gemmel did not complete the road according to the terms of the instrument, he would be held responsible by law, and the company could withhold payment until the work had been done.[52]

The men who directed the construction had no professional engineering knowledge or experience in road-building, for it was generally assumed that such work required only common sense.[53] The workmen cleared the right-of-way by cutting down trees and digging up stumps; they raised or leveled the grade, as the case required, by spreading earth and stones to the desired depths with rakes and hoes; and over this foundation they spread gravel, concentrating it most heavily in the center of the road and tapering it off toward the edges. Drainage ditches lined the roadsides, and stone and wooden culverts were erected over intervening streams. The road builders labored under conditions which are hard to imagine today. There were no factories in which tools were made, and few stores sold such products. If a man wanted a shovel, a pick, or a rake, he usually hired his local blacksmith to make it. Carts and wagons for hauling stone and gravel were also scarce, since each one was made by local smiths who usually produced no more than three or four a year; undoubtedly many

farmers along the turnpike were hired to haul materials in their wagons.[54] The labor force, which was not large, was recruited from the surrounding countryside.[55]

To insure that the road was properly built, the officers appointed inspectors to examine the work and to tell the superintendents of any defects they found. Such a policy was absolutely necessary, as can be seen in many of the inspectors' reports: the most common complaint was that the road had not been properly graveled.[56] Hugh Gemmel constructed his section of the road so poorly that the inspectors recommended immediate action to insure better performance. They advised that if Gemmel did not finish his section according to his agreement, the company should hire new men to do it and pay them by deducting the money from Gemmel's contract.[57]

The management of the company was not limited to constructing the road. The officers spent many long hours directing financial affiars, for it was their duty to see that the enterprise was a prosperous venture. The amount of stock originally subscribed in the New Castle and Frenchtown Company is not known, but it is certain that it was at least $12,500 as required by the law of incorporation. By December, 1813, the officers realized that they did not have sufficient funds to complete the construction

of the road, and concluded that the capital stock would have to be increased. During 1814 the stockholders voted to increase the operating capital on two occasions, and these new subscriptions were so widely supported that the total value of the company's stock soon rose to $34,750.[58] All the stock was sold on the installment plan: an initial down payment was made at the time of the purchase, and the other installments were made in such sums and at such times as the managers indicated.[59]

As the cost of construction continued to rise during 1813 and 1814, the officers had to settle a variety of accounts: there were bills for supervising the work, repairing the road, building toll houses, cutting timber, erecting the culverts, and hauling gravel. Although the Frenchtown Turnpike Company was not a large financial venture, the managers showed extreme care in handling the most minute expenses. On one occasion, for example, Robert Porter submitted an account of $16.50. After studying the matter, the managers discovered that $1.75 of the bill had been charged for a book belonging to the New Castle Turnpike Company, and allowed only the balance of $14.75.[60] The largest sums were paid out for constructing the road, and by the time the entire work was finished the cost totaled $37,223.74.[61] That the expense of this project greatly

exceeded that of the New Castle Turnpike was due to a number of factors: the Frenchtown highway was about fifteen miles long; more lands had to be purchased in securing the right-of-way; and the cost of grading the whole thoroughfare, of building culverts, and of purchasing gravel and stone was much higher.

Two miles of the turnpike had been fully completed by February, 1814, and the officers appealed to Daniel Rodney, the Governor of Delaware, to appoint three inspectors to examine the finished section.[62] Rodney appointed John Caldwell, James Brendly, and James Shaw, who, after viewing the work, reported that it had been carried out according to the law.[63] The company was then licensed to collect two-fifths of the legal tolls on the completed part of the road.[64] By the following September the officers made another appeal to have the remainder of the road within the limits of Delaware inspected by the state, and the former inspectors were reassigned. After much delay, they approved the construction to the Maryland line by May 17, 1815.[65] The following year the Levy Court of Cecil County approved the remainder of the road from the Maryland line to Frenchtown.[66]

Although there had been demands since the eighteenth century for bettering the communication facilities across the Delmarva Peninsula, the first such improvement was not

completed until 1815. By this date two turnpike companies had laid a gravel road across the northern isthmus. The New Castle Turnpike Company had constructed two and a half miles of the road, stimulated mainly by a desire to improve the trade and commerce of New Castle rather than by the expectation of dividends from the road itself. The New Castle and Frenchtown Turnpike Company, however, was designed to bring profits to its stockholders, and this firm would never have built its fifteen-mile turnpike if it had not been known that the steamboats of the Union Line would assure the company a large amount of business. Neither of the pikes were built by experienced roadbuilders, and in reality they would have been considered poor gravel roads by modern standards. By the criteria of the early nineteenth century, however, they were hailed as a major transportation improvement.

## CHAPTER III

## STEAMBOATS AND STAGES

The turnpikes connecting New Castle and Frenchtown provided the main route across the Delmarva Peninsula for fifteen years, until the Chesapeake and Delaware Canal broke the land barrier between the bays in 1829. These two companies were important exceptions to the vast majority of American turnpikes, for they operated as successful business enterprises and paid dividends during many years. It will therefore be worthwhile to examine the actual operations of these two early American business corporations to see how they were managed, to understand what particular problems arose for them, and to learn how these issues were resolved. The majority of the discussion will again be devoted to the Frenchtown Company, because of the insufficiency of records for the New Castle Company.

The completion of the New Castle and Frenchtown Turnpike did not end the work performed on the road, because the law of incorporation required that the highway had to be kept in "good and perfect order and repair." If any part of the road became defective, a justice of the peace could stop toll collection for that section of the pike; repairs had to be completed by the following session of the court,

or the men responsible for maintaining the road would be fined $20 to $100 depending on the circumstances.[1] Here we find one clue to the success of the New Castle and Frenchtown venture. Many early American turnpikes fell into deplorable conditions because no attempts were made to maintain them once they were completed.[2] The officers of the Frenchtown Company were determined to avoid such a situation, and even before the turnpike had been officially opened to collect the full tolls they appointed superintendents to maintain parts of the road: Levi Boulden and John Janvier were in charge of the section from Clark's Corner to the Bear Tavern, James Thompson from there to the Maryland line, and Frisby Henderson from the state line to Frenchtown.[3] From time to time trees along the roadside had to be cut down, drainage ditches cleared, and fresh gravel spread over the surface.[4] Although the pike was in sound condition most of the time, there were occasions when it was almost impassable, especially after heavy rains and during the winter.[5]

The collection of tolls distinguished turnpikes from other roads, and the law of incorporation was very specific on this subject, regarding both the owners and users of the thoroughfare. The tolls varied according to the types of vehicles used and the distances traveled, as can be seen in

the prices charged for using five miles of the Frenchtown Turnpike:

> every score of hogs, six cents; . . . every score of cattle, twelve cents; for every sulkey, chair or chaise, with one horse and two wheels, six cents, and with two horses and four wheels, twelve cents; . . . for every sleigh or sled, two cents for each horse drawing the same; for every cart or waggon, or other carriage of burthen, the wheels of which do not in breadth exceed four inches, four cents for each horse drawing the same.[6]

Since the New Castle Turnpike was not quite three miles long, its tolls were only one-sixth of the amount charged for using the road from Clark's Corner to Frenchtown. Owing to these low prices, the New Castle Company did not have trouble collecting its tolls,[7] but from the outset the Frenchtown Company faced a serious problem in enforcing collections: many drivers refused to pay the latter firm's tolls, which they considered exceedingly high.[8] The directors accordingly ordered the toll gatherers to keep the gates closed to anyone who would not pay, and even fired one collector who was negligent in his duties.[9]

Local residents traveled over the roads in private carriages and on horseback, and some farmers used the pikes to drive their livestock to market in New Castle.[10] Many people used the New Castle Turnpike in traveling to and from Wilmington, but the Frenchtown Company was almost

totally dependent upon the stages and wagons of the Union Line for its income. In 1815, therefore, the Frenchtown directors arranged a contract under which the owners of the Union Line agreed to pay an interest of 6 per cent per year on the turnpike's capital stock for using the road.[11] No record exists of such a contract with the New Castle Company. But the managers of the Frenchtown organization soon found that the arrangement with the Union Line was unsatisfactory, for their company was not taking in enough money even to pay its debts.

In an attempt to improve the situation, the stockholders of the Frenchtown Company elected new officers in April, 1816. Samuel H. Black succeeded Kensey Johns as president; Richard Sexton became a director in place of John Janvier; and James Couper, Jr., replaced Thomas Janvier as treasurer. John Crow, Henry Bowman, and Levi Boulden continued to serve as managers.[12] It is significant that the stockholders did not re-elect John and Thomas Janvier, both of whom were among the owners of the Union Line. It is obvious from later developments that these brothers were primarily interested in the welfare of the steamboat firm and not particularly concerned about the prosperity of the turnpike.[13]

The new managers immediately investigated the company's financial affairs and soon became alarmed at their findings: the capital stock amounted to $34,750, but the completion of the road had required $36,045.35. Although the road had been approved by the state inspectors, the tolls collected until the beginning of 1816 had proved insufficient even to pay the salaries of the toll keepers, and money spent for repairs added new burdens.[14] In order to meet these mounting expenses the former managers had drawn a loan of $2,750 from the Farmer's Bank of New Castle, for which 110 shares of the company's capital stock had been accepted as collateral.[15] The officers did not blame their predecessors for these conditions, realizing that an effort had been made to improve the situation; but they did realize the need for prompt action to restore solvency.

After studying the problem carefully, the directors decided to initiate a new policy to relieve the young company's economic plight. The road had been built almost exclusively for the Union Line, they reasoned, and the Line received more advantages from it than any other individual or group. The Frenchtown officials did not believe, however, that the 6 per cent interest which the Union Line had agreed to pay on the company's capital stock was equal to the full tolls authorized by law. Furthermore, they doubted

the legality of the agreement itself, because the law of incorporation provided that contracts could be made only with individuals who used the road to convey themselves and their families. It had also been discovered that the heavy wagons and stages of the Union Line weakened the road, thus causing higher repair expenses. The Union Line proprietors, on the other hand, had complained that the 6 per cent interest amounted to more than the legal tolls. With these facts in mind, the turnpike directors decided not to renew the Union Line's contract, and declared that all stages and wagons would have to pay the full legal tolls. The owners of the Union Line obligingly accepted the new arrangement.[16]

Within a short time rumors spread that the Union Line did not intend to pay the tolls. These passed as the "idle wind," but it soon became apparent that they had to be taken seriously. The Union Line wagons, and private drivers as well, began to evade the toll gates; some individuals actually smashed them forcibly to the ground.[17] The turnpike managers believed that the Union Line proprietors were encouraging the drivers to evade the toll payments, for they knew that this firm had a vast influence over the local wagoners.[18] It cannot be proved that the Union Line officials actually supported the opposition to the turnpike, but it is certain that they could have

remedied the situation by dismissing any driver who would not comply with the law. It is hard to believe that they were ignorant of the turnpike company's predicament.

While the company found itself in this unexpected struggle, the maintenance of the pike itself was neglected. The roadbed became gullied, and large holes dotted its surface; carriages could barely pass one another because the edges of the thoroughfare had so greatly deteriorated; and several culverts had become weakened to the extent that they were dangerous to cross.[19] Complaints soon arose, and Samuel Barr, a justice of the peace in New Castle, condemned the entire portion of the road which lay within the bounds of Delaware. From now on, tolls could not be collected until the pike had been satisfactorily repaired.[20]

Such was the state of affairs by early July, 1816. The turnpike officials were especially worried over the possibility of prejudice mounting against the toll road, for they realized that it could become widespread and totally destructive to the company. Turnpikes were new in the country, and people were not accustomed to paying for the use of a road; although the opposition to them was "ignorant, illiberal, and illegal," it was none the less serious and had to be stamped out quickly.[21] It would be impossible, they realized, to press suits against every person who had

not been paying tolls, for this would only make matters worse. The officers therefore laid the entire blame on the Union Line, believing that with this organization's cooperation the whole matter could be settled peacefully.[22]

A special stockholders' meeting convened on July 27 to discuss the problem. Kensey Johns, Jr., and James Couper, Jr. had prepared a report in which they recommended several courses of action. First, the entire company could be sold to the Union Line for the par value of the stock together with a payment of 6 per cent interest on each share for a specified period. Secondly, the Union Line could agree to pay a semi-annual charge of 6 per cent upon the whole capital stock of the company and assume the cost of maintaining the road. Finally, the steamboat proprietors could agree to force every stage driver and wagoner employed by them to pay the full tolls; the turnpike directors would then agree to repair the road, for they believed that the payments of the Union Line alone would render a reasonable dividend to the stockholders. The tolls collected from other users of the pike would then cover the expenses of maintaining the road.[23]

After discussing the three proposals the stockholders ordered Couper and Johns to present the same three alternatives to the Union Line proprietors and report the results

within one week. When the Union Line officials were confronted with the situation, they assured the turnpike representatives that they would have their full cooperation in solving this problem. Agreeing to pay the full tolls, they promised to dismiss any of their drivers who refused to cooperate.[24] This offer was accepted by the turnpike company. During the remainder of 1816 the amount of tolls greatly increased, and the company soon had the road in "good and perfect order" once again.[25]

The need to cooperate against a common rival for the business of transporting goods and passengers from Baltimore to Philadelphia may have been responsible for the speed with which the Frenchtown and Union Line officials came to terms. The success of the Union Line had induced the Baltimore packet company of Briscoe and Partridge to enter the steam navigation business. By 1815 this firm had secured a steamboat named the Eagle to transport passengers from Baltimore to Elkton, where stages carried them on to Wilmington to meet another steam vessel on the Delaware.[26] The Elkton and Christiana Turnpike Company, which had been chartered in 1813 to build a highway along the route, was completed by 1817.[27] To meet this competition, the Union Line built two new steamboats, and most of the commerce continued to cross by way of the New Castle and Frenchtown road.[28] The

turnpike officials also attempted to offset the competition by appointing Kensey Johns to petition the Maryland Legislature for the power to build a road that would connect the New Castle and Frenchtown route with the Elkton and Christiana Turnpike near Elkton.[29] This privilege was never granted. Johns and his associates also tried to increase their business by asking the Delaware Legislature for permission to construct a road from the Red Lion Inn to intersect with their turnpike at Bear Tavern, but this attempt to expand also failed.[30]

From 1817 to 1819 both the New Castle and Frenchtown companies struggled to pay dividends, but with little success. Most of the money collected in tolls was expended in repairing the roads and paying the salaries of the officers and tollkeepers; only a small amount was left over for the stockholders.[31] The Frenchtown Company was especially burdened by repaying the loan which had been granted by the Farmer's Bank. Its officers therefore intensified their efforts to collect all tolls; although they had settled their dispute with the Union Line, they did not want the problem to recur. Since the road had been constructed for bringing a profit to the company's stockholders, the managers intended to see that this was done. They warned the toll collectors that if they allowed travelers to pass the

gates without paying, they would be discharged.[32]

Trouble soon arose. John Sponger, a wagoner who was sometimes employed by the Union Line, had lived up to his name by refusing to pay his tolls. The managers therefore ordered that he be forbidden to drive his wagons over the road until he had settled his debt with the company. At the same time they informed the Union Line of Sponger's case, asking that immediate action be taken on the matter.[33] Despite these efforts Sponger did not yield, and began to evade the toll stations by driving his wagons onto the road by "private ways." The turnpike officers accordingly brought a suit against him in the court of Samuel Moore, who appointed three referees to settle the matter. After an investigation, the mediators reported there were no grounds for the suit. The turnpike officers objected, and appealed to Moore to reopen the case, pointing out that the arbitrators had assumed the right of deciding a question of law, which they had no authority to do. The directors further maintained that the decision was erroneous in point of fact, for Sponger had admitted that his wagons had passed the turnpike since November 8, 1816 without paying tolls.[34] Moore refused to reconsider on the grounds that he had no power to grant the company's request, but he did suggest that an appeal be made to a higher court.[35] Although the

turnpike officers resolved to reopen the suit in the Court of Common Pleas in New Castle, they apparently were unsuccessful, for there is no further mention of it in the company minute book. This case illustrates the company's desire to enforce the collection of tolls in order to insure a profit, and also shows the difficulties of collecting tolls; it may also be indicative of the prevailing attitude toward paying for the use of an improved road.

Because the company was not collecting enough tolls to declare adequate dividends, and also as a result of toll evasion, the officers appealed to the Delaware Legislature in January of 1818 for additional powers. The lawmakers accordingly passed a supplementary act which, among other things, restated a section of the original act of incorporation empowering the company to increase the tolls if a dividend of 6 per cent a year was not being paid after two years of operation. The act also established an additional safeguard by providing that anyone who obstructed or damaged any part of the road would be subject to a fine of $10 for every day the obstruction or damage remained unrepaired.[36] Soon after this act was passed the managers resolved that the tolls be increased by 50 per cent after the 25th of March.[37]

On the same day that the tolls were ordered to be increased, the officers appointed James Couper, Jeremiah Bowman, and Richard Sexton to meet with the proprietors of the Union Line to arrange a one-year contract for using the road. This committee asked the Union Line to pay 6 per cent annually on the turnpike's capital stock.[38] After several months of negotiating, John Janvier, on behalf of the Union Line, agreed to the terms laid down by the turnpike. Under the new arrangement, the Union Line would pay $2,250 in quarterly payments for using the road from March 25, 1819 to March 25, 1820.[39]

These provisions were renewed each year from 1820 to 1830 and solved a number of problems for the turnpike, because they assured a larger annual income and eliminated the difficulty of forcing the drivers of the Union Line to pay tolls. Nor did the Union Line suffer unduly, for in many years its income from freight and passenger service netted its owners dividends ranging from 20 per cent to 40 per cent. Furthermore, if the wagoners of the Union Line had paid the full charges--especially after the tolls had been increased--the turnpike company would have enjoyed a much more prosperous business.[40] In view of their past difficulties in collecting tolls, however, the turnpike officials were willing to settle for the new arrangement.

There is no record that the New Castle Turnpike Company also arranged a contract with the Union Line; the tolls collected from this organization were simply listed in the turnpike's account book along with the sums taken from other firms and individuals who used the road. There is evidence, however, that the New Castle Company followed the example of the Frenchtown firm and increased its tolls in 1818, for by the following year there was a sudden rise in its income. Prior to this time its tolls averaged about $500 a year, but after 1818 its annual intake mounted steadily and reached a peak in 1825 of $1,003.85.[41] During the 1820's the Union Line accounted for the major part of the income of both companies. The tolls collected from other travelers provided enough money to maintain the roads, but the dividends were paid out of the money derived from the steamboat organization.[42]

Both turnpike companies and the Union Line were confronted with a serious problem in January, 1821, when the Delaware Legislature passed an act to establish a college in the village of Newark. To provide funds for this institution, the lawmakers placed a tax on steamboats and stages. Steamboat owners whose vessels conveyed passengers on the Delaware River from Philadelphia or any other city to any point in the state of Delaware would have to obtain a

license for each steamboat so used. In return for the license a tax of 25 cents was to be levied on each passenger and quarterly payments had to be made to the state treasurer. To insure that all payments would be made accurately and promptly, the act imposed a lien on each steamboat licensed. If an owner failed to make his quarterly payments, the state treasurer could order any sheriff in Delaware to seize his steamboat and sell it in order to pay a fine of $2,000 for each offense. Any excess money from the transaction was to be returned to the owner whose craft was sold.[43] The proprietors of stages that conveyed persons through the state also had to obtain licenses, for which the fee was 8 per cent annually on all moneys received from passenger service, payable in quarterly installments. Stages which were connected with any steamboat that had already been licensed by the state were exempt from the law. The act also placed a lien on licensed stages to insure that a fine of $500 would be paid each time an owner failed to make one of his quarterly remittances. If steamboat or stage lines carried persons through the state without a license, they would be subject to a fine of $500 for each person so conveyed. The act went into effect on March 1, 1821.[44]

Immediately after the bill was passed, a storm of protest raged throughout Delaware, and shouts of discontent arose in neighboring states. The opposition charged that the law was unconstitutional and unfair, for it clearly violated the right of a person to pass freely from one state to another, and the major burden of the tax would not fall on Delawareans but on people journeying between Baltimore and Philadelphia. The law was also unwise, for it would discourage many people from traveling through Delaware and doing business within its boundaries.[45]

"A Wilmingtonian" launched the attack on the bill in a blistering article published in the Delaware Gazette on February 2, 1821. It was an outrage, he asserted, to found a college for the rich, when there was not an adequate school system for teaching the hundreds of children in the state reading, writing, and other useful branches of learning. How could the legislature be so foolish as to impose an extra tax during a period when money was scarce?[46] Why should the tax be imposed on steamboats only, and not on every other type of boat that conveyed passengers? The "Wilmingtonian" held that on every stream emptying into the Delaware, from Indian River to Naaman's Creek, shallops transported people to Philadelphia. With an equal vigor he assailed the tax on the stages, by pointing out that the

people of New Castle County would be especially hard hit by the tax, even if they traveled only one mile in a stage; the people of Wilmington would suffer each time they went to New Castle to the county court.[47] Soon other writers joined in the assault on the college act. Some asked who had recommended this bill and its mode of taxation, and concluded that the majority of men lived in or near Newark, "a small village in an obscure corner of this state, where it is impossible it /the college/ can ever flourish."[48] Such critics urged their fellow citizens to rally against this unjust oppression and fight the tax.

Mass demonstrations flared up in New Castle and in Wilmington, where angry mobs burned in effigy the legislators who had sponsored the bill.[49] The editor of the Delaware Gazette believed these to be the first public riots in the history of Wilmington; most Delawareans could not remember any other issue that had aroused such strong opposition.[50] Many men who had been writing against the bill condemned these acts of violence and lawlessness, regardless of their cause; one writer described such riotous assemblies as "fit only for boys and negroes, and not for men of sound intellect."[51]

The opposition became more civil and better organized when on February 17, 1821, a group of stage and

steamboat owners met at the home of Eli Lamborn in Wilmington to discuss the act. They concluded that the law was unnecessary and unjust, and urged that similar meetings be held throughout the state to protest it.[52] In response to this request meetings were held in the town of New Castle and in Mill Creek, Brandywine, and New Castle hundreds, all condemning the tax.[53]

Antagonism also came from outside New Castle County. "A Citizen of Kent" denounced the law, opposing any tax that was leveled at a certain class of citizens.[54] The outcry from Sussex County was more intense:

> The people in this county view the laws for taxing the stages, steamboats and shopkeepers, as vile, wicked and iniquitous laws, got up and passed by a few wicked, selfish, intriguing men, for the purpose of gratifying their hatred to a poor clergyman, that wants to get a little bread by his profession, as a teacher.[55]

Other states were equally alarmed over the act. The editors of the New York Daily Advertiser believed it a "most extraordinary affair," and presumed that the main object was to draw revenue from steamboat passengers crossing from New Castle to Frenchtown. They held that no state had the constitutional power to levy such a tax. If a passenger in a stage could be taxed, men who traveled in their own carriages could be taxed. Any man who even walked across the

state of Delaware could be taxed! "The citizens of the United States have a right," they believed, "of passing freely and without any pecuniary penalty, from state to state, and we do not believe they can lawfully be deprived of it." They were confident that the people of Delaware would have this scheme removed as fast as possible.[56] Philadelphians also urged that the law be repealed.[57]

Andrew Gray, who was singled out as the principal sponsor of the act, received many harsh criticisms, and on several occasions struck back at his detractors. In early March, 1821, the Delaware Gazette published one of the speeches in which Gray had urged the Delaware Legislature to pass the college bill. Gray believed that the act had many advantages: it would bring a large sum into the treasury annually; by reason of the small amount of the tax, it would be unoppressive; it would be easy and inexpensive to collect; and it would be gathered chiefly from strangers, who could not complain of paying the same tax that the citizens of Delaware paid. The tax, Gray believed, would violate neither the Constitution of the United States nor that of Delaware. "A power not exclusively delegated to the United States," he pointed out, "nor prohibited to the states, may be exercised by the states." Even if people did object to the duty, Delaware was so strategically

located that travelers would have to pay the tax when passing from North to South along the Atlantic Coast. In conclusion he pleaded that in this case the end certainly justified the means: "You will not . . . be doing evil that good may come out of it."[58] Gray was undoubtedly sincere in his arguments, but his reasoning was erroneous, and he was sadly mistaken in believing the tax was a wise one.

Within a week Gray further defended his position by publishing a letter in the Gazette in which he stooped to arguments which his opponents regarded as demagogic. The law would not put a burden on the poor, he noted, but on the wealthier classes; in the past landowners had borne the major burden of taxation, but now part of the load would be shifted to such privileged classes as steamboat owners, stage owners, and merchants. He described this class, along with bankers, as being an extravagant group that had always profited at the expense of the poor, especially the debt-ridden farmers.[59]

Gray's arguments only intensified the anger of his opponents. "Nestor" quickly attacked him by accusing him of lying to the people, slandering the banks, belying the merchants, and insulting the attorney general. He described Gray's arguments as:

> So repugnant to truth, to the character of a gentleman, and the dignified station of the Legislator . . . that in the abundance of our pity and disposition to cast a mantle over his errors, we know not whether, most to ascribe them to his ignorance or to his malice.[60]

"Nestor" did not object to the establishment of a college but only to the method of sustaining it, for he considered it illegal to impose a tax on a special group. He urged the people not to obey the law, for they would thereby force the legislators to bring it before the state grand jury, where it would be declared unconstitutional, unjust, and illegal.[61]

The bitter controversy lasted through February and March, 1821; one or two articles on the subject appeared in almost every Wilmington paper issued during those months. By April the outcries had subsided, but the opposition to the bill remained strong, and in the following year the state legislature repealed it.[62] Although the act was in effect for almost a year, it is not certain that the taxes were actually paid or the leins enforced. Upon repealing the law, the legislature provided that all taxes, duties, fines, and forfeitures which had accrued under it and had not been settled, be paid.[63]

It was fortunate for both turnpike companies and the Union Line that the tax was repealed. If the law had

remained in effect and been enforced, it could have compelled the Union Line to abandon the state of Delaware. Without the steamboat traffic, of course, the New Castle and Frenchtown Turnpike Company could not have maintained itself. Since this was not the case, the turnpike operated as a prosperous business enterprise. Prior to 1820, the Frenchtown Company paid several small dividends of two or three per cent on each share of stock.[64] Once the tolls had been increased, the yearly contracts arranged with the Union Line, and the loan repaid to the Farmer's Bank, the corporation was able to pay annual dividends of 6 per cent from 1820 to 1830.[65] There were a few exceptions: twice in 1824 and once in 1825 the officers found it expedient to declare a dividend of only 5 per cent, and in March of 1828 the board decided to declare no dividend for the preceding six months.[66] After 1819 the New Castle Turnpike Company also declared small yearly dividends of about ninety cents on each share of stock.[67] Although these dividends were not large, the company did not fall into debt as did the majority of similar ventures in America.

The two small turnpikes between New Castle and Frenchtown succeeded in paying dividends primarily because they were vital links in the chain of communication between Baltimore and Philadelphia. Despite their strategic

location they were at the mercy of the Union Line, whose steamboats supplied most of their business. The case of these two companies gives an insight into the weaknesses of turnpikes at their best. These roads were not astounding improvements in transportation, although they were the best at the time. Because they had to be constantly repaired, their owners were forced to charge tolls so exceedingly high that it was difficult to collect them, and only the contract with the Union Line assured the turnpike stockholders a return on their investments. But the steamboat line would only continue using the gravel roads until new and better communications facilities were established. This ominous fact made the future of the two road companies highly uncertain.

## CHAPTER IV

## CANAL VERSUS RAILROAD

In 1824 an important undertaking was begun that was destined to revolutionize transportation between Delaware Bay and the Chesapeake. A group of Philadelphia capitalists had renewed their interest in the Chesapeake and Delaware Canal Company, which had failed in its original effort to dig an artificial waterway; by 1824 the company had been reorganized, and construction was once again under way. The directors, all of whom were Philadelphians, had chosen a new route for the canal, terminating at a point below Wilmington and New Castle on the Delaware River. The relocation angered the Wilmingtonians, because they had hoped that the canal would increase the trade and commerce of their city; the new course would cause much of the produce of the Susquehanna to be shipped through the canal and directly up the Delaware to Philadelphia, by-passing Wilmington.[1] New Castle also faced a serious problem as a result of the newly-revived waterway. The turnpikes from New Castle to Frenchtown could not compete effectively with the canal, for merchandise could be shipped more cheaply and rapidly through the channel, and passengers would naturally choose the ease of a canal barge instead of the jolting and dusty trip in a stage. Some men even suspected

that the Union Line would abandon the New Castle route and adopt the canal.[2] Clearly, both Wilmington and New Castle had to offset this rival to the South.

They found the solution in a new transportation agency--the railroad. Many Delawareans realized the practical value of railroads by 1826, after steam locomotives had been successfully demonstrated on the Stockton and Darlington Railroad in England.[3] Although they did not know exactly how railroads were built, how much they cost, or how they were operated, they were eager to learn. The citizens of New Castle had begun investigating the possibilities of building a railroad from New Castle to Frenchtown during 1827. Many Wilmingtonians, fearing that New Castle would succeed in building a railroad first, gathered at a public meeting on January 26, 1828, to discuss the possibility of building a railway from Wilmington to Elkton.[4] James Canby, Sam Baily, and J. G. Rowland were appointed a committee to study the matter, and they immediately wrote letters to leading business men in Baltimore and Philadelphia who had interests in railroads and steamboats.

In writing to Philip E. Thomas, the president of the Baltimore and Ohio Railroad Company, they asked for assistance in offsetting the proposed railroad from New Castle to

Frenchtown. What would be the best route, they asked, for a railroad across the peninsula? How should the track be constructed? Should there be a single track with turnouts, or should there be a double track? Should there be one set of tracks for carriages and another set of tracks for wagons?[5] Thomas was out of town when the committee's letter arrived, but his brother, Evan Thomas, promptly replied. He reported that after spending some time in England inspecting railways, he had become convinced of their superiority over turnpikes and canals and believed they would inevitably succeed in America. He strongly urged the Wilmington men to construct their proposed railroad, because it had many advantages: the ideal topography between the Delaware and Chesapeake bays, the area's strategic importance as a connecting link between the North and South, the small amount of money required to build such a railroad, the abundance and excellent quality of materials that could be obtained from the Susquehanna Valley and from the shores of the Delmarva Peninsula, and finally the great profits that would be realized from conveying both passengers and goods. They had nothing to fear from the canal below them, he promised, for "it will never interfere with you--its tardy operations cannot compete with the speed of your railroad."[6]

It would be absolutely necessary, the committee believed, to have steamboats connect with the railroad on the Chesapeake and the Delaware; at this early date the Wilmington men, like the New Castle interests, saw no further than the possibility of building a railroad to link steamboat routes, as the turnpikes had done. In 1826 the Maryland Legislature had chartered a new steamboat line, the Pennsylvania, Delaware, and Maryland Steam Navigation Company, to convey passengers and merchandise between Baltimore and Philadelphia.[7] This company, which would rival the Union Line, had not begun operations, and the Wilmington men hoped they could make arrangements for the new firm to use their railroad. The committee accordingly wrote to William Meeteer of Baltimore, the president of the newly-founded corporation, asking for assistance. Meeteer's immediate response strongly supported the proposed railroad. His company had considered building a railway along the canal route, but the attitude of the citizens of Wilmington had convinced him that a railroad through Wilmington would be advisable. Because a strong prejudice existed against the Elk River above Frenchtown, he pointed out, it would be well to construct the road from Wilmington to a point just below the Frenchtown landing. If the residents of Wilmington could not gain enough support for the project, they should join with the citizens of New Castle in building a

railway between the bays. But if they did not construct a railroad, he warned, Wilmington might as well be on the other side of the Appalachians as regards the intercourse between the North and South, after the canal began operating.[8]

After making further inquiries and studying the letters of such men as Thomas and Meeteer, the committee reported that it would be highly favorable to construct a railroad from Wilmington to the Elk River.[9] They proposed that tracks be laid from Wilmington and New Castle to intersect slightly west of Clark's Corner, and from there to continue as one road to Frenchtown with a side track to connect Elkton with the main line. A double wooden railway could be constructed, they estimated, for a sum of $7,000 per mile, with a total cost of $126,000, exclusive of leveling, draining, and fencing. The cost of construction was greatly underestimated, but this was true in the case of most early railroads. An unexpected advantage, the committee reported, was a bill pending before the Maryland Legislature for incorporating a company to construct a railroad from Elkton to Oxford, Pennsylvania; this would extend the proposed railroad sixteen miles into a populous neighborhood, and from Oxford it was only another sixteen miles to the Susquehanna. The committee concluded that the

railway would soon be extended to this important river, thus forming a chain of roads from Wilmington to Frenchtown, Oxford, and the Susquehanna.[10]

The citizens of Wilmington supported the committee's recommendations, and in February of 1828 they appointed another committee to procure a charter from the Maryland Legislature for building the proposed railraod. Since the Maryland lawmakers had been in session since the past December, it was feared that they would adjourn before the company could be chartered. James Latimer, Jr., a member of the committee, therefore made a special trip to Annapolis. After overcoming some initial opposition, he succeeded in securing a charter empowering a company to construct a railroad from some point on the Elk River to Elkton and then to the state line in a direction toward Wilmington.[11] Soon after the charter had been obtained, the committee arranged to have the best possible route surveyed so that the road could be quickly located. They appealed to all Wilmingtonians to unite in supporting the railway, for they feared there would be strong opposition to their project from the Chesapeake and Delaware Canal Company ald also from the citizens of New Castle, who wanted a railway built from their community to Frenchtown.[12]

While the Wilmingtonians had been investigating the possibilities of building a railroad, the inhabitants of New Castle had been equally busy making plans to lay a similar line across the isthmus. At a town meeting in late February of 1828, a committee was appointed to work with the citizens of Wilmington in arranging to build a railroad.[13] This committee soon learned that their neighbors were already actively engaged in securing a charter from the Maryland Legislature for building their own railway, and the New Castle men soon chose a new course of action. They held another public meeting on March 1, where they resolved that a railroad from New Castle to Frenchtown along the old turnpike would be superior to all other routes across the peninsula because of the level surface of the road and the free and unstructed navigation at each end of the route. James R. Black, James Booth, and William B. Janvier were directed to appeal to the Maryland and Delaware legislatures, asking that the Frenchtown and New Castle companies be empowered to build a railroad.[14]

The committee obtained a charter from the Maryland Legislature in March of 1828, which must have been similar to the one granted in the same month to the Wilmingtonians.[15] The act empowered the officers of the New Castle and Frenchtown Turnpike Company to call a stockholders' meeting to

decide if the capital stock should be increased in order to build a railroad from Frenchtown to Clark's Corner. If it were agreed to increase the stock, the company could open its books for subscriptions; each share of stock was to sell for $25, and the company could become incorporated when $200,000, or a smaller sum that was considered sufficient to complete the road, had been subscribed. After the stock had been raised, the corporate name of the company would be changed to The New Castle and Frenchtown Turnpike and Railroad Company, and the new corporation would have all the powers granted to the former corporation.[16] There was evidently some doubt that the railroad would succeed, for it was provided that the managers keep twenty feet of the old turnpike open and in good repair.[17] In addition, the charter reveals that the Maryland legislators did not fully understand how a railroad was to operate. It stipulated that the railroad company could employ its own carriages, wagons, and steam locomotives to convey passengers and goods across the road, but that other individuals or companies could use vehicles on the tracks only if the managers granted them a license. The company could charge no more than 25 cents per person for conveying passengers from Frenchtown to Clark's Corner, and extra baggage, not exceeding one hundred pounds, was to be subject to a toll of 12½ cents.[18] These charges were identical to the tolls

for using the turnpike, and no provision was made for the extra expenses that might be incurred in operating steam locomotives and carriages. The state reserved the right to abolish the charter at any time after a period of twenty-one years, and the act was not to go into effect until the legislature of Delaware passed a similar law.[19]

Since the Delaware Legislature would not be in session again until January of 1829, the New Castle and Wilmington men had a long wait before they could attempt to have their companies chartered in their own state. There were several meetings between the two groups during the summer of 1828 to discuss the possibilities of cooperating in building a railroad from Wilmington and New Castle to Frenchtown, but apparently they did not reach any agreement, for the New Castle men were acting in their own behalf when the Delaware Legislature finally convened in 1829.[20]

The Wilmington company did not receive a charter in Delaware. Although the reasons for this are unknown, there are a number of possible explanations. If a railroad was to be built across the peninsula, the route from New Castle to Frenchtown was superior to that from Wilmington to Elkton: the New Castle way was more direct and level; there was a prejudice against the Elk River above Frenchtown, as the Wilmingtonians realized; and the turnpikes from New Castle

to Frenchtown had always been more profitable enterprises than the Elkton and Christiana Turnpike. In view of these facts it would have been foolish for Wilmington to sponsor a railroad that would run parallel to the one from New Castle and yet be at a disadvantage from the outset. On the other hand, the Wilmingtonians could not give up all hope of improving their city's transportation facilities, because they still had to devise some method to compete with the New Castle Railroad and the Chesapeake and Delaware Canal. By 1829 they might have begun to realize more fully the extent to which railroads could be developed by visualizing a single railroad, or even a chain of railroads, stretching from Philadelphia to Wilmington and to Baltimore. Two years later, entrepreneurs in these three cities were advocating such a project, and it could well be that as early as 1829 some men believed a railroad could be laid from Baltimore to Philadelphia.[21] This railroad would certainly be superior to the old steamboat route.

Even the New Castle men faced a more difficult task securing a charter in Delaware than they had in Maryland. Here both the New Castle Turnpike Company and the New Castle and Frenchtown Turnpike Company had to be empowered to build a railroad. Furthermore, unlike Maryland, Delaware had never incorporated a railroad company before.[22] Both

turnpike companies, however, appealed to the legislature for the powers to construct the proposed railway. The petitions, concise and simple in form, held "that a Rail road from French Town to New Castle . . . could be greatly beneficial to the two large commercial cities of Baltimore and Philadelphia, and the country through /which/ it would pass, requires no arguments on the part of your memorialists."[23]

Serious opposition had to be overcome before the bills were passed. Many legislators from Kent and Sussex Counties, where there was little to be gained from the railroad, opposed the bills on the ground that they would injure the stock held by the state in the Chesapeake and Delaware Canal Company.[24] William T. Read, a representative from New Castle Hundred who strongly supported the railroad bills, believed that such a position was unwise; the Canal would chiefly benefit Philadelphia, he pointed out, but a railroad through New Castle would enrich many Delawareans.[25] There was even stronger opposition arising from a misunderstanding of what a railroad actually was. Many Delaware legislators believed that a railroad corporation would be monopolistic, because the company would control both the tracks and the vehicles; some thought that anyone should be able to use his own carriage or wagon on the tracks once he had secured a license from the company.[26] Read attempted to

offset this opposition by arguing that the railway was not designed to be monopolistic, but to provide competition for the canal. Yet even he did not fully understand the problem, as he openly admitted: "Indeed I confess I have so little light upon the subject and the case is one so peculiar that I despair of finding a remedy for the very mischief I so clearly see."[27] He referred to the case of farmers living along the railroad, who would use the road to get their grain to market. These men could not be expected to put their grain in the company's wagons, which would be filled with other goods. Should they not have the right, he asked, to use their own carriages on the tracks?[28]

Because the opposition was so strong, it was doubtful that the railroad companies would be chartered in 1829. C. D. Blaney, a supporter of the railroad, believed it was absolutely necessary for the bills to be passed at the current session.[29] The Pennsylvania, Delaware, and Maryland Steam Navigation Company, which had been chartered in Maryland in 1826, was to be chartered in Delaware in 1829.[30] In addition, the Chesapeake and Delaware Canal was to begin operating the following summer, and it was believed that the Steam Navigation Company would transport passengers and merchandise between Philadelphia and Baltimore by way of the canal. Blaney pointed out that the Union Line intended

to compete with the new company and would also run a line by way of the canal, particularly if Delaware failed to incorporate the railroad. If the canal did go into operation and the railroad bills were not passed, Blaney pleaded, the Union Line would withdraw from New Castle and there would no longer be sufficient inducement to build a railroad from New Castle to Frenchtown. But if the railroad acts were passed at the present session, the Union Line would cooperate with the turnpike companies in exerting an extra effort to have the railroad completed quickly. A branch would most likely be constructed from Clark's Corner to Wilmington.[31]

Thomas Janvier also wrote to Read, calling his attention to the fact that all the states adjoining Delaware were incorporating railroad companies, and urging that Delaware must also improve its transportation facilities.[32] To help secure the enactment of the bills, the turnpike companies sent Thomas Stockton and James Booth to Dover in early February, and these lobbyists succeeded in having the acts passed.[33]

The legislators first empowered the Frenchtown Company to build a rail line west of Clark's Corner. The new law provided that thirty feet of the turnpike must be properly maintained, whereas Maryland had required that only twenty feet be preserved; furthermore, Delaware

reserved the right to tax the capital stock of the company a sum not exceeding one half of one per cent per year. But the most important difference involved the use of the road, for the Delaware law allowed any person or company to use their own carriages, wagons, or locomotives on the railroad after they had paid the legal tolls. This amendment was inserted to satisfy those legislators who believed that a railroad company controlling both the tracks and carriages would be monopolistic. Like Maryland, Delaware could abolish the company's charter at any time after twenty-one years.[34] An identical act was passed at the same session authorizing the New Castle Turnpike Company to construct a railroad from New Castle to Clark's Corner. Even though this road would be much shorter than the one from Clark's Corner to Frenchtown, the New Castle Company, like the Frenchtown Company, could increase its capital stock to $200,000.[35] If the stockholders voted to construct a railroad, the corporate name would be changed to the New Castle Turnpike and Rail Road Company.[36]

In March, 1829, Maryland passed a supplementary act for the New Castle and Frenchtown Turnpike Company. The Maryland Legislators noted that the Delaware act differed from their own in a number of respects, but did not deem it necessary to make the company comply with the new provisions.

The managers could therefore call a meeting of the stockholders, open the books for subscription, and begin to construct the railroad so far as it related to Maryland.[37]

The stockholders of the New Castle and Frenchtown Turnpike Company met at the Union Line Hotel in New Castle on May 1, 1829, to decide whether or not the stock of the company should be increased.[38] The meeting convened at ten o'clock in the morning and the laws of incorporation were read. In the afternoon, while George Read addressed the stockholders on the subject of constructing the railroad, he noted that the Maryland Legislature had failed to provide for a public landing on the Elk River. Andrew Henderson, one of the stockholders, replied that he owned the property where the landing would probably be built, and he assured the stockholders that he would not prevent them from obtaining the necessary land. He would gladly grant it to the company after satisfactory terms had been arranged between the directors and himself; in case a dispute should arise, three mediators were to be appointed to settle the matter.[39] After this offer had been accepted, the stockholders unanimously agreed to build the railroad.[40] The members of the New Castle Turnpike Company also met on May 1, and voted to sponsor a railroad from New Castle to Clark's Corner.[41]

Both companies quickly made provisions to enlarge their capital. The Frenchtown Company directed James Couper to be in charge of selling new stock, and he arranged to open the books in Baltimore, New Castle, and Philadelphia.[42] The New Castle Company, however, sold stock only at the Steam Boat Hotel in New Castle.[43]

The first attempt to increase the stock failed. James Couper reported to the directors of the Frenchtown Company that he had received subscriptions for two hundred and seventy shares of stock in Baltimore, but that he had been unable to make any sales in New Castle or Philadelphia.[44] The stock subscription did not succeed because the laws of incorporation were too restrictive and did not offer enough encouragement to investors.[45] The provision that the charters could be revoked after twenty-one years was particularly undesirable. The railroad would require a large amount of capital to meet the high expenses of construction and operation, and there was no guarantee that it would be immediately successful. Perhaps it would pay dividends only over a long period of time.[46]

Neither company gave up after these early failures. The directors of the Frenchtown Company resolved to seek additional powers that would give them more assurance of success, and the lawmakers accordingly passed supplementary

acts in the early months of 1830. Maryland surrendered the power to revoke the charter at any time after twenty-one years.[47] The Delaware Legislature made more extensive changes. In accordance with the Maryland law, the company was required to maintain only twenty feet of the turnpike. It was also granted sole permission to operate steam locomotives and carriages on the tracks, and private citizens or other companies were no longer allowed to use their own vehicles. The power of Delaware to tax the capital stock of the company was abolished, and the charter was made revocable only after a period of thirty years. The most important change provided that after the two turnpike companies had raised their capital stock, they could agree to merge and form a single corporation for building the railroad from New Castle to Frenchtown. If the companies did agree to unite, the new name of the combined organization would be the New Castle and Frenchtown Turnpike and Rail Road Company.[48]

Both turnpike companies believed that the supplements improved the possibility of raising the necessary capital, and accordingly agreed to reopen their books for stock subscriptions at the Town Hall in New Castle on March 4, 1830.[49] Their laws were printed in pamphlet form and distributed at the Exchange in Baltimore and the

Merchants' Coffee House in Philadelphia. The new subscription succeeded, and during March of 1830 about $200,000 was subscribed in the stock of the two companies.[50]

Not only did the supplementary acts offer new inducements to capitalists, but the general interest in railroads was steadily mounting in Delaware by 1830. Articles appeared in the Wilmington newspapers which clearly demonstrated the practical value of railroads. Locomotive engines had been run on the Liverpool and Manchester Railroad, it was reported, at a rate of thirty-two miles an hour.[51] The Baltimore and Ohio Railroad Company had successfully constructed a few miles of track over which excursions were run, and these early experiments were so popular that the cars were frequently overcrowded with enthusiastic passengers. It was generally accepted that this railroad would bring in handsome profits when it was completed as far as Ellicott's Mills.[52] Such developments certainly encouraged Delawareans who were interested in constructing a railroad.

After the New Castle and Frenchtown railroad organizations had been successfully incorporated, a stockholders' meeting was called to decide if the two should merge.[53] On March 31, 1830, those who possessed shares in either company met at the home of Bennet Lewis in New Castle and voted to

join the two organizations into a single corporate body. The articles of union adopted by the two groups specified that all profits derived from conveying passengers and goods across the railroad would be the exclusive property of the stockholders, and that charges for using the railroad could never be lowered without the approval of three-fourths of those owning shares. Fourteen directors were to be chosen to manage the affairs of the company, and none of these men were allowed to be contractors for surveying, laying out, or grading the road, as had been the case with the turnpike officials. Finally, the directors were strictly forbidden to empower any other person or company to use vehicles on the railroad.[54] Mathew Kean, the Recorder of Deeds for New Castle County, officially certified the union on April 14, 1830, and the two independent companies no longer existed.[55] The New Castle and Frenchtown Turnpike and Railroad Company would direct the construction of the entire railroad from New Castle to Frenchtown.

By 1830 the Delmarva peninsula was caught up in the "Transportation Revolution," as a canal had been dug through the isthmus, and plans were being made to build a railroad. The canal, which had been dreamed of since the seventeenth century, initiated the change, and soon New Castle and Wilmington were attempting to offset this rival with

railroads. But the Delawareans did not fully understand how this new conveyances were to be constructed and operated, and clearly revealed their lack of comprehension in the state's first railroad laws. Many men believed that railways would not be basically different from the older methods of communication, and therefore railroad promoters in both Wilmington and New Castle at first thought only of laying a track across the peninsula to connect with steamboats on the Chesapeake and Delaware, as the turnpikes had done. Wilmington's geographic location, however, was unfavorable for undertaking such a project, and New Castle was victorious in securing a charter to build the first Delaware railroad. Yet it appears that the Wilmingtonians had begun to realize more fully the extent to which railroads could be developed, and within a few years they would be engaged in building one section in a chain of railroads that would connect Philadelphia and Baltimore. This line would eventually defeat the New Castle and Frenchtown Railroad.

# CHAPTER V

## CONSTRUCTION AND COMPLETION

The building of a railroad--even though it was to be only a sixteen-and-a-half-mile track--presented a formidable problem in 1830. This work would be larger, more complicated, and more expensive than had been the construction of either of the turnpikes. It required a great amount of capital, a large labor force, and materials which would have to be shipped in from many areas of the United States and England. But there were few railroad companies in the world to which the New Castle men could turn for advice, and therefore they would have to be pioneers in helping to develop a new mode of transportation.

After the stockholders of the New Castle and Frenchtown firms had voted to merge the two organizations, they elected John Janvier president and chose thirteen directors. James Couper was appointed treasurer and C. D. Blaney became secretary. The majority of the directors were from New Castle; Andrew McIntyre and Frisby Henderson represented Frenchtown; and William McDonald and Andrew Henderson were Baltimoreans.[1]

One of the officers' first tasks was to employ an experienced engineer to direct construction, for unlike the

laying of a turnpike, the building of a railroad presented many technical problems that could not be solved by a layman. The road had to be surveyed and the best route chosen; the curves and embankments had to be carefully measured; the track had to be laid; and the wharves at New Castle and Frenchtown had to be constructed. As the work progressed, numerous problems arose that demanded the attention of an engineer. Yet professional engineers were rare in America during the early decades of the nineteenth century.[2] Since there were no schools, with the exception of West Point, that offered technical training, American engineers learned their trade by actually working on turnpikes, canals, and railroads.[3]

John Randel, Jr., who was employed as the engineer-in-chief of the New Castle and Frenchtown Railroad, had gained his early experience as a surveyor on the Erie Canal, but he had become known to Delawareans chiefly for his work on the Chesapeake and Delaware Canal. It had been Randel who had surveyed the new route for the waterway in 1824, causing it to be located south of Wilmington and New Castle.[4] In 1825 a bitter dispute had arisen between Randel and the canal company, and the directors fired the young engineer on the grounds that he had neglected his contract. This proved to be a serious mistake for the company. Many people,

believing that Randel had been unjustly treated, condemned the dismissal. Randel sued the organization for breach of contract, and after ten years of complicated legal maneuvering was victorious, securing a sum of $226,385.84.[5]

Randel began his survey of the railroad late in the spring of 1830. After examining the country between New Castle and Frenchtown, he decided that it would be best to locate the railroad in a route parallel to the turnpike but several hundred yards to the south of it. The new route was almost perfectly straight, there being no sharp curves to impede the speed of the locomotives.[6] By July the directors approved Randel's survey, and the route was divided into seventeen sections. A contractor was put in charge of the work on each of these to supervise the excavation of the roadbed, especially where inclines had to be overcome; the erection of embankments over marshes and low areas; the digging of drains; and the construction of culverts. These tasks were under way by the end of July, and continued throughout the remainder of the year.[7]

A number of problems soon plagued the company. The most serious obstacle was obtaining ownership of all the lands through which the railroad was to pass. Some lands were donated to the company; others were purchased at a reasonable price; and when a dispute arose over the value

of a property, arbitrators were appointed to settle the controversy. But in some cases the company had been unable to purchase the necessary right-of-way, either because the landowners lived out of state and could not be contacted, or could not make legal contracts due to infancy, coverture, or incompetency of mind.[8] The officers also had to secure deeds for each new parcel of land; since these lands were numerous, there would be much delay and expense in getting all the necessary titles. Finally, the company had no safeguards against persons who might damage or destroy parts of the work. In January of 1831, the officers appealed to the Delaware and Maryland legislatures to help them in overcoming these problems.[9]

The legislatures complied with the company's requests by enacting supplements to the previous laws of incorporation. In those cases where the necessary right-of-way could not be obtained, the directors were to apply to the Court of Common Pleas of New Castle County, and the justice was to appoint five disinterested freeholders to inspect the land and determine what a reasonable price would be. After the directors paid the sum prescribed by the inspectors, the land would be the property of the company.[10] To avoid the delay and expense of securing land deeds, it was provided that a company representative and each landowner

should draw up a certificate describing the land, specifying the price paid for it, and confirming the transferal of the land to the railroad company. After the certificate had been witnessed by any judge or justice of the peace in Delaware, it would have the same legal status as a deed.[11] A person who destroyed any of the company's property or placed obstructions on the tracks would be subject to a maximum fine of $5,000, which was a far cry from the $30 levy for damaging the turnpike.[12]

The supplements were welcomed by the managers, who immediately made arrangements to secure all of the remaining right-of-way. They were always careful to get the best possible price. A Mrs. Barr of New Castle offered her lot for $1,200, but it was believed that this could be lowered to $1,000.[13] Mrs. Deborah Mundall, who owned property in the town of New Castle over which the railroad was to pass, had flatly refused to sell. Although she would be forced to change her position by the supplementary act of 1831, it was feared that she might ask an outlandish price. It would be wise, James Booth suggested, to have someone buy the property who was not connected with the railroad. In this case Mrs. Mundall might sell the land at a lower price, and later the property could be transferred to the company.[14] Whether this was actually done is not known, but the episode

clearly revealed the care with which the railroad officials conducted purchase negotiations.

The cost of constructing the railroad would greatly exceed the combined expenses of building and maintaining the two turnpikes. In November of 1830, Randel estimated that the entire outlay would be $204,000, but this was a rough estimate in which many items were not included.[15] Since railroads were completely new in America, and since Randel had no previous experience in constructing railroads, it is understandable that expenses were grossly underestimated. When the directors closed the books for stock subscriptions in November, 1830, $235,250 had been invested in the company;[16] on the basis of Randel's estimate this sum would cover the cost of construction.

The investments in the railroad venture differed from those in either of the turnpike companies. The railroad stock was more widely distributed, for individual holdings ranged from one share to over three hundred.[17] Most of the investors were private citizens; neither the federal nor state governments gave financial assistance to the railroad. The citizens of New Castle invested heavily in the company, but the road would never have been built if Philadelphia and Baltimore capitalists had not become interested in the project. The owners of the Union Line, most

of whom were Baltimoreans, made large investments; Samuel Nevins and a number of his fellow Philadelphians purchased 2,000 shares; and individuals such as William D. Lewis purchased over a hundred shares each.[18]

The case of William D. Lewis gives an insight into the motives of the men and women who invested in the railroad. Lewis, a Philadelphian, had entered the business world at the age of seventeen as an apprentice to the house of Samuel Archer and Company, Philadelphia merchants in the East India and China trade. From 1814 until 1824 he had worked in Russia with his brother, John D. Lewis, who was a commission merchant at St. Petersburg. During this time William made several voyages to the United States and toured Europe. On returning to America, he established himself as a commission merchant in Philadelphia, and was soon enjoying a prosperous business.[19] By October of 1830, he had investigated the prospects of the New Castle and Frenchtown Railroad, and was convinced that it would be a successful enterprise. He accordingly purchased two hundred shares of stock.[20] After paying his first two installments of $1,000 each, he subscribed an additional two hundred shares in November, 1830, shortly before the managers officially closed the books for further subscriptions.[21] If he had been able, he would have purchased a larger interest,

for he believed that after the railroad had been in operation for one year the stock would rise in value to $75 per share, if not to $100. His only worry was that the affairs of the company might be mismanaged.[22]

Most of the Philadelphia stockholders had invested in the company after the officers had been elected in March, 1830. By the following year they wanted to be represented on the board of directors, for they were not satisfied with the management of the company. The work was not advancing rapidly enough, and there had been disputes between the officers and the chief engineer. On occasions the directors and Randel actually issued conflicting orders to the superintendents.[23] The Philadelphians were even suspicious of the activities of some of the directors. In late April of 1831, George Read, a director, sold his railroad stock; it was reported that he wished to invest his funds in the Union Line, for it had been rumored that the steamboat firm hoped eventually to gain control of the railroad. The Philadelphians were disturbed. "We of the city," Lewis warned, "must look to our interests in that stock."[24]

On May 2, 1831, the stockholders met in New Castle to elect officers for the coming year. A group of Philadelphians, headed by Lewis and Nevins, attended the meeting, and took with them the proxies of many other Quaker City

investors, making their whole force about eight hundred votes.[25] George Read and James Rogers were to be dropped as directors, and James R. Black and Thomas Rogers had resigned, so that four new directors were to be chosen. Thomas Janvier wanted Kensey Johns elected, but the Philadelphians insisted that all the new directors be from their city. They were perfectly willing, however, to have Johns become a director if a fifth member of the board resigned. Janvier conceded, and Lewis, Nevins, Thomas Hale, and Benjamin Lewis, all of Philadelphia, were elected to the board. John Janvier continued to serve as president.[26]

The officers now decided to increase the speed of construction. The canal had been in operation since July of 1829, and both the Union Line and the Steam Navigation Company were shipping their passengers and merchandise through it. The railroad directors hoped that their road would be ready by the following year, 1832, so that they might compete with the canal.[27] Randel was ordered to make a detailed report of how much work remained to be done and how much it would cost. To make the construction advance more smoothly, the officers placed Randel in complete charge of the remainder of the work and barred individual directors from interfering with his orders. If a director believed he had a better method for constructing a certain feature

of the road, he was to bring the matter before his fellow officers for their consideration.[30]

The building of the railroad required a larger labor force than had ever been raised in Delaware with the exception of the one hired to dig the Chesapeake and Delaware Canal.[31] The workmen were recruited from Delaware, Pennsylvania, and Maryland, and were paid 80 cents a day.[32] By April of 1831, eleven hundred men were working on the road, but it was realized that a larger force would have to be raised to increase the speed of construction. After Randel reported that he needed five hundred more men, the officers instructed Lewis and Nevins to send as many laborers down from Philadelphia as possible, and dispatched an agent into the countryside to search for workers.[33] Within a few days Lewis and Nevins were sending workmen down the Delaware. Some were wretched-looking creatures, but the majority were stout fellows who would work well if kept sober.[34] It was especially difficult to keep laborers, because other railroads and canals were being constructed in the nearby states and the men would go wherever the wages were highest. Because such companies as the Baltimore and Ohio offered $1.00 per day and the Norristown Railroad 90 cents, the New Castle leaders had to increase their wage scale to 87½ cents.[35] The majority of the men were whites, but a few Negroes were

employed. There was some friction over the presence of the "blacks," and one contractor was ordered to discharge these men "owing to the apprehensions entertained of them."[36]

The superintendents employed many carts and horses, especially on those sections where excavations were necessary or embankments laid, and the drivers also hauled stone blocks, scantlings, and iron bars. Many farmers were paid $1.50 a day for supplying a cart and one horse, and $2.00 a day for a cart and two horses.[37] Since there was a constant shortage, Randel attempted to find more of them in Philadelphia.[38] After the contractors began to lay the rails, the company had special carts made to be used on the tracks. Jonathan Bonney of Wilmington made a number of these vehicles, for which he was paid $45.00 each.[39] Bonney, however, was inexperienced in making railroad cars, and his products were not satisfactory, for the wheels and axles were constantly breaking down. Soon the directors turned to Baltimore carriage makers and had better results.[40]

During April and May, 1831, crews of workmen were strung across the entire roadbed from New Castle to Frenchtown. At New Castle the wharf was being filled in; embankments were being laid over the marshy areas near New Castle; on the central part of the road workmen were making a two-foot excavation; and at Frenchtown gangs of men were swinging

picks and shovels into a hill of hard, tough clay. All of these tasks were in preparation for laying the rails. The directors hired Enoch Sweat, who was also employed by the Baltimore and Ohio, to lay the track. When Sweat arrived in early May to inspect the work, he was pleased with what he saw and reported that he would be able to lay at least a half mile of rails a week and perhaps a mile. The managers therefore believed that the entire road could be completed by September or October.[41] There were, however, a number of problems. The first of these involved Randel, who had been employed as the chief engineer for the Ithaca and Owego Railroad and would be away from New Castle during much of the summer and fall. Although he had employed two assistant engineers, it was feared that his absence would hinder the work.[42] A more pressing and immediate problem, however, was the lack of stone blocks.

The track was to be laid on large stone cross-ties, instead of the wooden ones used in building modern lines. The stones were laid in a base of sand and gravel at three foot intervals;[43] long wood stringers were then fastened to the tops of the blocks with iron knees; and thin strips of iron were finally spiked onto the tops of the stringers.[44] The scantlings were strong cross-beams of yellow pine, shipped from Savannah, Georgia to New Castle.[45] The thin

bars of iron were imported from England.[46]

The original board of directors had contracted with the firm of Smith and Megredy, who operated a quarry near Port Deposit, Maryland, to supply the railroad with stone blocks. These arrangements, however, were inadequate, for no one apparently realized how many blocks would be needed. In mid-May, shortly before the workmen began laying the rails, Nevins reported that there were only 7,000 stone blocks at Port Deposit which were cut and ready to be shipped.[47] But Sweat had told the directors that 300 blocks would have to arrive daily in order to lay a half a mile of track per week.[48] C. D. Blaney immediately went to Port Deposit and made contracts with an additional number of quarry owners, assuring the railroad an additional 15,000 blocks for the summer.[49] About the same time an agent of a Pennsylvania quarry, owned by the firm of Robinson and Carr, offered to furnish the railroad with 10,000 blocks. After some preliminary negotiations, the offer was accepted.[50]

Even this, however, did not solve the problem, which was now complicated by administrative bickering. By mid-June Sweat had arrived in New Castle, but he threatened to quit because a satisfactory contract had not been made with him. To prevent his leaving, a special meeting of the board was called, where an adequate agreement was worked out.[51]

Throughout the remainder of June, daily shipments of blocks arrived at New Castle, and Sweat was able to carry on his work.

Sweat was not the only official to make matters difficult by asserting himself. During May and June, 1831, while the new Philadelphia directors were leading the company into a more energetic policy of construction, friction arose among the officers. At a board meeting on May 31, Lewis criticized John Janvier for interfering with Randel and thereby delaying the work. Later that day Janvier sold his railroad stock and resigned as president. Lewis had not directed his criticism at Janvier personally, but had simply said what he considered to be best for the company. He did believe that Janvier's resignation would help, for he was "sure the work will progress much better & our deliberations be more harmonious without him."[52] James Booth succeeded Janvier as president, and Kensey Johns, Jr., was elected a director in place of Booth.[53]

The resignation of John Janvier was but the first step in the elimination of his family from power in matters affecting the railroad. Within a few days a dispute flared up between his brother Thomas Janvier and the other directors. Randel reported that it would be unsafe to cross one of the embankments, but he was strongly opposed by Janvier,

who believed that further work on the structure would be an unnecessary expense. The other directors sided with Randel, but Lewis moved that the matter be settled at a later meeting in order to conciliate Janvier.[54] After a week the latter was even more firmly convinced that he was right, and it was decided to let him have his way. Nevins believed it was essential at this time to maintain harmony within the company; if they could get across the embankment for the summer, they could improve the situation later.[55] The following November, Thomas, like his brother, sold his railroad stock and resigned as a member of the board.[56] After this, Lewis and Nevins exerted the strongest influence in directing the affairs of the company.

In June of 1831 the directors decided to make an all-out effort to complete two miles of the track from New Castle to Ross's Point by July 4. They hoped that this small section of track would demonstrate the practical value of the railroad, and thereby engender more enthusiasm and support for the project. Stone blocks were arriving daily, Sweat was making rapid progress in laying the rails, and the road was in sound shape. Late in June, however, Sweat ran out of spikes and the work came to a halt. Lewis immediately sent an agent, Norris Austin, to New York City to contract for 30,000 large spikes and 10,000 small ones.[57]

On arriving in New York, Austin found that no spikes were available, and took a steamboat up the Hudson to Albany in search of some. Again he had no luck, for there was a great demand for railroad spikes throughout the country. Finally, he moved on to Troy, where the proprietors of the Troy Nail Works agreed to fulfill his order as fast as they could manufacture the spikes. Austin waited in Troy for several days until the first portion of the order had been fulfilled, and personally shipped it to New Castle.[58]

When the spikes arrived and the work resumed, the managers made preparations for the Independence Day celebration: they provided four fast trotting horses, had railroad coaches shipped in from Baltimore, and employed several experienced drivers. But an unexpected attraction was soon arranged. A Colonel Long of Philadelphia had constructed a steam locomotive and wanted to demonstrate it on the New Castle Railroad on the holiday occasion. Lewis enthusiastically approved, and the engine was shipped to New Castle.[59]

The work was nearly completed to Ross's Point when on July 1, a torrential rain flooded the entire track. Nevins went to New Castle early the following morning, and was horrified to find all of the workmen leaving the road because of the wet weather. He persuaded them to return to work by "rum, wine, and promises."[60] Fortunately the weather

remained clear and the work was completed, although Nevins had to keep the men on the job digging drainage ditches throughout Sunday, July 3. "I suppose," he mused, "I shall be set down as a heathen among the good people of N/ew/ Castle."[61]

Many curious people attended the Fourth of July celebration, which came off on schedule. Unfortunately, Long's locomotive was unable to run, but all were highly impressed with the railroad. "Its great strength," Lewis commented, "seemed in fact to cause general astonishment." The cars, filled to overflowing, ran throughout the day to Ross's Point; the passengers were charged 25 cents each, but many rode free because of the great crowd and excitement. The directors were satisfied that the demonstration stimulated new interest in the road.[62] On the following day Long succeeded in running his locomotive, making a number of trips across the tracks at a rate of fifteen miles an hour.[63]

Throughout the remainder of the summer and fall the progress of the work was frequently endangered by the lack of stone blocks. The officers were constantly alert for new sources of stone. While Norris Austin was in New York contracting for spikes, he learned that railroad blocks were quarried at Sing Sing Prison. After making a trip to that institution, however, he discovered that the peniten-

tiary officials had already contracted for all the blocks they could produce that year.[64] In July, Lewis and Stockton went to Port Deposit to find out why the blocks were not arriving in sufficient quantity; on examining the quarries they concluded that there were not enough men on the job, but they did arrange for more blocks with an additional number of quarry owners. The new contracts assured the company 23,400 blocks from Port Deposit, and it was hoped that these, along with the blocks from Robinson and Carr, would be enough to complete the railroad by the end of the year.[65]

Some quarry owners, however, threatened to abandon their contracts, explaining that they were losing money under their agreements with the railroad. One quarry proprietor named Fitzsimmons told Stockton it would be impossible for him to produce all the blocks he had agreed to supply. Stockton replied that the contracts would not be varied, that the railroad directors were disgusted with the conduct of many of the quarry owners, and that the following week he would urge the board to bring suits against anyone who refused to fulfill his contract. Fitzsimmons then promised not only to complete his contract, but asserted that it might be possible to send more blocks than he had originally promised.[66] Other quarry owners also complained, but the board was as unwavering in each case as Stockton had been with Fitzsimmons.

In the early summer the managers had hoped that one track could be completely laid by October. By September, however, it was obvious that this would be impossible, for only five miles of the track had been completed.[67] The scarcity of stone blocks, the shortage of laborers, and the lack of experience in building a railroad all accounted for the delay in construction. Still, the managers were determined to have the road in operation by the following spring, when steamboats would begin to run. After considering the matter carefully, they decided that if enough stone blocks could not be obtained to finish the road by spring, wooden sleepers of white oak would be substituted for the blocks. Hemlock planks were to be laid lengthwise along each side of the track in a base of sand and gravel. On this foundation cross-ties of white oak, seven and a half feet long and eight inches in diameter, were to be laid every three feet.[68] Later a second track could be laid with more desirable materials. The contractors were ordered to increase their labor forces so that the roadbed could be excavated before the frost settled in the ground.[69]

During the unseasonably warm, clear days of November the workmen advanced steadily, as they completed the bridges and culverts, dug many drains, and laid mile after mile of track. Some contractors working on the embankments and

excavations found it difficult to stay ahead of the crews laying rails.[70] A violent storm that sank a sloop loaded with stone at New Castle and swept the wharf logs over the marsh at Frenchtown delayed the work for several days, but by the end of the month ten miles of track had been completed and were ready to be used.[71] The most serious obstacle to completing the whole work at this time was the Frenchtown hill, where one hundred and fifty men were working, but progressing slowly; two men with picks could loosen only enough dirt for one man to shovel away.[72]

On the first day of December the weather suddenly became bitterly cold, and a deep frost began to settle into the ground. Some contractors suggested that the work be suspended until the weather improved, but the directors would not hear of it.[73] As the Chesapeake and Delaware became solidly frozen, it was impossible to ship stone blocks from Port Deposit to New Castle. The remaining six and a half miles of track were therefore laid on oak sleepers; workmen went into the surrounding countryside and cut the needed lumber with crosscut saws.[74] By the middle of December the ground had become so solidly frozen that cords of wood were burned along the roadbed during the nights to soften the earth and make it easier to excavate.[75] The last section of the Frenchtown hill was finally blasted

out by the end of the month.[76] Laborers who were not absolutely essential to the work by this time were dismissed; the wages of those cutting the drains and excavating the road were cut to 75 cents a day; and the daily rates for carts and horses were reduced to $1.25.[77]

When heavy rains fell during January and threatened to undermine the track, special crews were dispatched to clear the drains and dig new ones where necessary. The roadbed was so flooded for a time that carts could not be used on tracks, but the work continued after sand and gravel were spread over the route.[78] More work was needed, however, before the tracks would be safe for steam locomotives to travel over them. Since the Steam Navigation Company had arranged to send its passengers over the railroad for the coming year, the directors decided to use horse-drawn carriages until it was safe to introduce locomotives.[80] As the ice melted on the Delaware and the Chesapeake in late February, the steamboats began to make regular trips between Philadelphia and Baltimore, and it was decided to open the railroad for full passenger service on February 28th.

On the morning of the grand opening, Nevins was at New Castle to see that everything went smoothly. He feared that a heavy rain of the previous night might have weakened

the embankments. Then a load of stone blocks--the first unwelcomed shipment--arrived and obstructed part of the wharf where the passengers were to land. When the steamboat from Philadelphia finally anchored, twenty or thirty passengers boarded the coaches for the trip to Frenchtown. The agents hurriedly packed the baggage, and after a short delay the carriages pulled out. Nevins remained in New Castle anxiously awaiting news of the trip. If they could transport passengers safely for the first several weeks, he believed, they would not have to fear the competition of a dozen canals. By the afternoon he wrote to Lewis that they were victorious, for the first trip had been made in an hour and twenty minutes without any trouble.[81]

## CHAPTER VI

## FROM HORSES TO LOCOMOTIVES

The railroad officers had been faced with an ever-pressing question during the summer and fall of 1831: would the railroad be in operation in the coming year? It frequently appeared that it would not. There were shortages of laborers and supplies; the cold, wet weather of the winter months threatened to halt the work; and the superintendents were never able to work as fast as they had anticipated. By February of 1832, however, one track was finished, and the company was ready to begin competing with the canal for the commerce between Baltimore and Philadelphia. But while they were struggling to complete the railroad, the directors encountered a series of pressing financial problems. As the work progressed, the cost of construction greatly exceeded the company's capital, and more money had to be raised. How was this to be done? Could the company issue more stock? Or would money have to be borrowed, and if so, from whom? To these questions the harrassed directors now turned their attention.

As the rate of construction quickened during the summer of 1831, the managers called on the stockholders to pay their last three installments on the original capital

stock of $235,250.[1] The value of the stock had steadily increased on the Philadelphia market, rising from $22 per share in February to $29 per share in May.[2] At the end of the summer, as the track was actually being laid and it appeared that the road would be ready by the following year, the stock sold for $34 per share, and it was strongly believed that the railroad would be a fruitful investment.[3]

This general confidence was a valuable asset to the company, for by September the cost of the work had exceeded the capital stock by more than $100,000.[4] Extra money had to be raised, and quickly, if the work was to be completed. Some of the railroad officials who held large investments in the Union Line, such as Thomas Janvier and William McDonald, believed that the problem could be solved if the railroad and steamboat companies would merge. The Philadelphia directors and a majority of the New Castle leaders strongly opposed this plan, however, for they believed the railroad could be an independent and profitable enterprise and not merely a subsidiary of the Union Line.[5] After carefully studying the laws of incorporation, they realized that there were no provisions for increasing the company's capital stock. Obviously the money would have to be borrowed.[6]

When the directors met in New Castle on September 12, Lewis presented a plan by which funds could be secured from

the company's own stockholders. Each investor could subscribe to the loan in proportion to the stock he owned; loan certificates, which would be worth $25 each--the par value of the stock--were to be issued as security, and would be exchangeable for shares of company stock at any time within six months after the loan had been made. The company would pay interest of 5 per cent a year, and the loan could be redeemed any time after five years at the discretion of the directors. In effect, this was a clever plan for increasing the company's capital stock; since the latter was well above its par value on the market, most stockholders could be expected to exchange their loan certificates for regular shares. After Thomas Janvier seconded Lewis' plan, the directors adopted it and appointed Lewis, Nevins, and Stockton to be a committee to arrange the loan. They agreed to raise $65,000 for the present, but realized that an additional $40,000 would be needed.[7] The stockholders displayed their faith in the company by subscribing $64,575, all of which was converted into capital stock. With these additional funds the directors continued to meet expenses during the next two months.[8] Although the officers were not empowered to increase the capital stock, this loan was absolutely necessary, for without it the work would have been suspended due to lack of funds.

The directors soon arranged to secure an additional $45,000. In late November they again authorized Lewis, Nevins, and Stockton to appeal to the stockholders for a sum of $35,000 on the same terms as the first loan had been made; at the same time they decided to accept a loan of $10,000 that had been offered by the Farmer's Bank of New Castle.[9] Unfortunately, the company began to draw upon the Farmer's Bank before the loan had been fully arranged, and by the middle of December it owed the bank a debt of about $15,000. The following week the bank was to make its semiannual statement, and the railroad directors feared that the company's credit would be weakened if the deficit were not settled. In addition, they might not be able to secure future credit from the bank unless they closed this financial gap.[10]

Nevins and Lewis raised the needed money on the pretext of appropriating $10,000 of the $35,000 loan that the board had authorized to be subscribed by the stockholders. Actually they followed a new course. Since the railroad's stock was worth $33 to $34 on the market, they sold 400 shares for $30 apiece, guaranteeing the buyer (who is unknown) that the price of the stock would not go below $30 for 90 days. Lewis, who owned 400 shares, transferred his own stock certificates to the buyer, and replaced them with loan certificates. "The operation must be kept by all of you as it is

by us," Lewis warned his fellow directors, "profoundly secret." It was feared that a sudden sale of the stock might knock its value down to par; but the directors saw to it that this did not happen, and the company again had sufficient funds to meet its expenses.[11] This shrewd business arrangement brought the company $12,000; if the stock had been sold at its par value it would have netted only $10,000.

In January of 1832 the officers appealed to the Delaware Legislature for power to increase the company's capital stock by an additional sum of $400,000. They informed the legislators of the original loan of $60,000, but made no mention of the December stock sale.[12] The legislature complied with the company's request by empowering the directors to sell new stock, provided it was not sold below its par value of $25 per share; the additional stock could not exceed $300,000. The officers could also borrow money when it was needed and issue as security loan certificates that could be converted into capital stock. All loans which had been made before the passage of the supplement and converted into stock certificates were made valid.[13]

Soon after the supplementary act had been passed the loan committee raised the remainder of the $35,000 loan which the directors had authorized them to make the past November, following the same policy that had been adopted

in offsetting the deficit at the Farmer's Bank. By February of 1832, when it was known that the railroad would be in operation by the next month, the market value of the stock continued to remain well above par. If 1,400 shares had been sold at their par value the additional $35,000 would have been raised. But the loan committee sold 500 shares for $30 apiece, 200 shares for $32 apiece, 200 shares for $33 apiece, and 100 shares for $36 apiece. These sales, along with the 400 shares sold in December, brought a sum of $43,600 into the company's treasury.[14]

While the track was being laid and the loans were being raised, the directors had begun to negotiate with a steamboat line to convey its passengers over the railroad. From the opening of the Chesapeake and Delaware Canal in the late summer of 1829, both the Pennsylvania, Delaware, and Maryland Steam Navigation Company and the Union Line had sent their passengers through the waterway on horse-drawn barges. The base charge for running a single passenger line through the canal daily was $8,000 a year, and if an extra line were to be run the charge would be $14,000.[15] The competition between the two steamboat lines must have been keen, but the Steam Navigation Company was the victor, for by the end of 1830 the Union Line had been absorbed by its rival. The details of the merger have not been discovered, but some

of the directors of the Union Line, including Thomas Janvier, William McDonald, and Andrew Henderson, secured positions on the governing board of the new company. William Meeteer, who had been president of the Steam Navigation Company, held the same position in the new corporation. After the merger the company was sometimes referred to as the Steam Navigation Company and at other times as the Citizen's Union Line.[16]

In 1831 the canal company raised the charge to $10,000 a year for running a daily passenger line; if two lines were run, the charge would be $14,000.[17] Because the price for using the canal was so high, the steamboat officers looked forward to the completion of the railroad, for not only would the latter give speedier passenger service, but the new competitor might force the canal to lower its prices.[18]

The railroad officials had carefully considered what arrangements they should make with the steamboat company. After Lewis and Nevins had become directors, they studied many of the turnpike company's records and were amazed at their findings. Although the Union Line had paid the turnpike company $2,250 a year, which was 6 per cent interest on the turnpike's capital stock, the steamboat firm had enjoyed an overwhelming advantage. If, for example, the stages and wagons of the Union Line had paid the full tolls for 1828,

the turnpike company would have received $6,369.84, almost thrice what it had actually secured. It had also been reported that the steamboat proprietors had netted profits ranging from 33 per cent to 60 per cent from year to year.[19] The directors were determined that the railroad would not suffer the same fate as the turnpike, for they knew that the new mode of transportation had certain advantages over the canal. It took a canal barge over two hours to make the trip from Delaware City to Chesapeake City, but steam locomotives would be able to pull a train across the peninsula in about an hour. The heavier freight might continue to go through the canal, but passengers would prefer the speed of the railroad.[20]

In October of 1831 the railroad officers appointed a committee, consisting of Nevins, Lewis, Stockton, and Kensey Johns, Jr., to work out arrangements with the Citizen's Union Line for using the railroad during the coming year.[21] This group was aware of a number of factors: the steamboat company charged $4.00 per passenger for the trip from Baltimore to Philadelphia; it was estimated that about 60,000 passengers made the complete trip each year; and during the past year the steamboat company had paid a dividend of 25 per cent to its stockholders. The railroad representatives wanted one-fourth of the total fare charged by the steamboat

company--$1.00 per passenger--and were determined not to settle for less than 50 cents.[22]

In early November Nevins discovered that John and Thomas Janvier, William McDonald, and Andrew Henderson were urging the steamboat directors to continue using the canal on the grounds that the railroad would not be ready until late in the summer of 1832. The motives of this group are unknown, but some speculations can be made. McDonald and Henderson were undoubtedly sincere in their beliefs, for after the railroad was completed they gave it their wholehearted support. The motives of the Janviers were different. Apparently they had hoped that the steamboat line would be able to use the railroad as it had the turnpike, but after the Philadelphians had been elected to the board the two brothers had discovered that they could no longer have their way. After friction had arisen between the two groups, the Janviers sold their railroad stock and supported the canal. The railroad directors were aware of the situation, however, and were on their guard against the "Janvier gang."[23]

On November 8, 1831, the railroad committee went to Baltimore to work with a group representing the steamboat company in making arrangements for the coming year. After conferring for several days, the negotiators arrived at a general agreement under which the railroad would receive

$1.00 for each steamboat passenger conveyed over the tracks; on this basis it was estimated that the railroad would take in about $60,000 a year from the steamboat corporation alone. If the steamboat company ran a second line by way of the canal, vessels of equal size and speed would convey passengers from Philadelphia and Baltimore to the canal and to the railroad. Minor issues were settled concerning the transference of baggage from the steamboats to the railroad cars and the renewal of the contract each year. After the committees reported the results to their companies, the arrangements were approved.[24] On November 31 the directors of the railroad and the directors of the steamboat company gathered in New Castle, where they held their respective board meetings. Afterwards they rode in railroad cars across the first ten miles of the track, which had been completed to that date, and walked the remainder of the way to Frenchtown, where they entered a steamboat, the Independence. On board they had a delicious duck dinner and spent a "gay evening." This meeting was important, for it convinced the railroad directors of the "good feeling of a majority of the Steam Boat Board," and encouraged them to believe that the "Janvier influence" was now at an end.[25]

The Citizen's Union Line had not completely abandoned the canal, for the steamboat directors planned to run one

line through the waterway.[26] In early January of 1832 the steamboat directors entered into negotiations with the canal company, and were surprised to learn that the arrangements were to be the same as the past year--$10,000 for one line running daily through the canal and $14,000 for two lines.[27] The steamboat directors had assumed that the railroad would force the canal company to lower its rates. After considering the matter, they decided that if the canal did not lower its charge both lines would be run by way of the railroad, and the steamboat directors arranged to use horses and stage coaches on the old turnpike until the railroad was completed.[28] When the canal directors were notified of the steamboat company's decision, they refused to alter their rates.[29] Perhaps the canal officers did not believe the railroad would be completed by the time the steamboats began to run, or possibly they were not convinced that the railroad would be a serious competitor.

Despite the canal officers' refusal to lower their charge, one faction of the steamboat directors, consisting of Thomas Janvier, Manuel Eyre, and Philip Reybold, still wanted a line of steamboats to use the canal.[30] At a steamboat board meeting in late February, 1832, Eyre and Janvier "fought a fierce battle disputing the ground inch by inch and making every possible effort to get the boats on the

canal again at any cost." Although the majority of the directors favored the railroad, a resolution was passed that a second line would use the canal if satisfactory arrangements could be made. But this was considered equivalent to a defeat of the canal interests, for it would be the same majority of the directors who decided what the satisfactory arrangements would be.[31]

After the canal directors learned of the steamboat company's decision, they agreed to make a new offer. They decided to charge the steamboat company 25 cents per passenger, provided a minimum of 30,000 passengers used the canal; in any case, the steamboat company was to pay the canal company a minimum of $7,500 for the year, and if the number of passengers exceeded 30,000 an extra charge of 25 cents was to be imposed on each additional passenger.[32] When the offer was presented to the steamboat directors another bitter fight was waged, but the railroad interests were again victorious. "We have met the enemy," Meeteer reported to Lewis, "and they are ours." Five directors voted to run both lines by way of the railroad, and four voted in favor of the canal route.[33]

With the track completed and the contract arranged with the Citizen's Union Line, the New Castle and Frenchtown Railroad Company entered its first year of operation. From

February through August horses were used to pull the carriages, filled with passengers and merchandise, over the tracks, and in September steam locomotives were successfully introduced. It was a year of experimentation, for there were many things to be learned about managing the railroad and problems frequently plagued the company. But since it was one of the first American railroads, this early period of adjustment was necessary.

Richard Imlay, a Baltimore carriage maker, supplied most of the company's passenger cars. These vehicles did not resemble modern railroad cars, but were only larger copies of ordinary stagecoaches. Each of them had an interior seating capacity of twenty persons; in some cases there were additional seats on the tops for other riders. Imley's most expensive cars cost $850, but he also produced a cheaper model for $575. By February of 1832 a number of Imlay's coaches, along with some produced by George Steever, another Baltimore carriage maker, had arrived in New Castle and were ready for use.[34]

A single horse pulled each carriage, but the animals were frequently changed so that they would not tire, thus enabling the trip to be made as quickly as possible.[35] During the early months of operation when the horses were adjusting to the new mode of travel, they sometimes balked and

fell, and proved unable to trot swiftly against a high wind.[36] On one occasion several freight cars were being loaded at the Frenchtown wharf, and as their weight began to press upon a horse, the animal became panicky and charged into the Elk River. Luckily, a steamboat blocked the cars from going into the water, but the horse almost drowned.[37] On several trips the wheels or axles broke, sometimes throwing a carriage from the tracks, but fortunately no passengers were seriously injured.[38]

The directors paid James Bird and Samuel Burr a yearly salary of $600 each for serving as railroad agents at New Castle and Frenchtown.[39] These agents saw to it that the cars and horses were ready when the steamboats arrived; had all the passengers properly seated; kept accurate lists of passengers and freight; and were alert for any difficulties that might occur.[40] At first, problems frequently arose. When more passengers arrived than had been expected, confusion reigned as extra cars and horses were prepared; at times there were painfully long delays in loading the baggage onto the cars; and there were numerous complaints that the freight was damaged in throwing it from the steamboats onto the wharf.[41] By May most of these difficulties had been solved, and passengers and baggage were transferred from the steamboats to the cars quickly and efficiently,

usually making the entire trip over the railroad in an hour and a half. This was absolutely necessary, since the railroad's greatest advantage over the canal was its speed in conveying passengers.

From the outset the railroad was successful, for during March 4,413 passengers traveled over the line, and this business, along with a small amount of freight service, brought the month's income to $4,710.53. "Pretty well for a beginning!" Lewis noted.[42] The railroad did not begin to carry freight until late March, but this proved to be a remunerative undertaking, as the profits for hauling the freight in a single day sometimes amounted to over $100.00.[43] Much of the railroad's freight consisted of light, perishable goods, such as lemons, oranges, raisins, and other foodstuffs.[44] When the warm spring weather arrived, hundreds of curious people took Sunday excursions over the novel railroad.[45] The company's business continued to increase in April and May, but during the summer months there was a general decline in the number of passengers. This had been expected, however, for in managing the turnpike the directors had learned that there was not as much traffic during the summer as there was in the spring and fall.[46] The business was seriously hampered in August, when a cholera epidemic broke out in New Castle.[47] Nevertheless, the directors

were highly pleased with the results of the first six months, and anxiously awaited the fall when steam engines would begin to run on the railroad.

While the company was operating with horse-drawn carriages, construction crews worked along the road, making it ready for the steam engines. They prepared turnouts and switches, dug more drains, erected sheds for the locomotives and cars, and built returning platforms at New Castle and Frenchtown on which the locomotives would be turned around after each trip. Side tracks for the passenger cars, merchandise cars, and locomotives were laid, branching out from the main track about 300 to 500 yards from the wharves at each end. Ira Sweat took a crew of workmen over the entire roadbed, correcting any weaknesses he found by laying additional sleepers and strengthening the embankments.[48] On June 4, the directors ordered Randel to have the entire railroad completed within a month. Since much remained to be done, Randel worked gangs of laborers both day and night, frequently directing the work twenty hours out of every twenty-four. By July 3, the road was finished, and Randel reported that the track was perfectly safe for locomotives.[49]

The railroad directors had arranged as early as June of 1831 for a steam engine to be constructed by Robert Stevenson of New Castle, England. William Kemble, whose

firm constructed locomotives at West Point, New York, had offered to build engines for the New Castle and Frenchtown Railroad, but the directors preferred the English firm, which had produced many of the finest locomotives in the world to that time.[50] When Stevenson offered to produce an engine for £850, the company accepted. The first locomotive for the New Castle Railroad had been completed in September, 1831, and sent to Liverpool, England, where it was to have been shipped on board the Monongahela to Philadelphia. When the engine arrived at Liverpool, however, it was accidently put to work on the Liverpool and Manchester Railroad.[51] Stevenson immediately began to produce an identical engine, but it was not until the following April that it arrived in America; many ship captains refused to handle such a heavy and bulky load, and it had taken a long time to make the necessary arrangements for shipping the apparatus.[52]

There were few men in America who knew how to assemble a locomotive, and the railroad directors had no idea how long such a work would take or how much it would cost. A mechanic, identified as "Baldwin," was employed for the job, and took four long months to finish it. When a second Stevenson engine arrived in August, a new mechanic assembled it in a week.[53] Baldwin had either not known what he was doing, or had deliberately cheated the company.

Because the railroad was designed primarily for passenger service, it was essential that a competent engineer be employed to run the locomotive; any serious accidents might weaken public confidence in the railroad and encourage people to use the canal. Lewis wrote to Robert Stevenson asking him to recommend an experienced engineer, for he understood that there were a number of English engineers who were willing to come to America.[54] Apparently Stevenson could not find a competent man for the job, and in March of 1832 the directors hired Edward Young to take the position. Young, who was experienced in operating steamboats and may have even worked with locomotives, proved to be a valuable employee.[55]

The steam engine was not immediately substituted for the horses, for the railroad officers wanted to be assured that it was safe and efficient. During July and August the "Delaware," as the new locomotive was named, made many trial runs. On some of the early trips the average speed was 15 miles an hour, but sometimes the little engine clipped along at a rate of 30 miles an hour. Randel thought that it could attain a top speed of 50 miles an hour, but he did not believe the public was ready for such rapid travel.[56] Soon the engine was pulling four cars loaded with passengers and several baggage cars, making the entire trip from New Castle

to Frenchtown in a little over an hour. But the engine needed more work before it would be ready for full operation: sometimes the pump became clogged with mud and had to be cleaned, and there was frequently not enough wood to keep the engine fired and running. Once in late July, as Young was running the engine, the steam pressure became so high that he could not pull the valve to reduce the strain on the boiler. Alarmed, he called to his fireman, and together they were barely able to force the valve open. But the engine was damaged, and it took several weeks to repair it.[57]

The company's second locomotive, the "Pennsylvania," arrived in mid-August. After it had been assembled and tested, and the "Delaware" had been repaired, the directors decided to begin operating the railroad entirely with steam locomotives on September 10. Most of the horses were sold and the drivers dismissed.[58] A gala celebration was held on the opening day at New Castle, when many people came to see the locomotives run. Toasts were drunk, speeches were made, and the railroad was hailed as a great national improvement.[59]

The early trips across the peninsula took about an hour. Most of the passengers were highly pleased with the results, but some complained that the cars were overcrowded and others thought the train traveled too fast.[60] There were no serious accidents during the first year, although

the engines jumped the rails on several occasions, some car wheels broke, and in a few instances the locomotives became clogged with mud.[61] Most of these difficulties disappeared after the first two months.

In October and November the business increased, to the delight of the directors; in the latter month, the company's income exceeded $5,000. Most of this was from passenger service, but the locomotives could haul more freight than the horses had, and this phase of the business also increased.[62] When the Delaware River and Chesapeake Bay became frozen in the winter, there was almost no traffic on the railroad. The first year's operation was hailed as a success, however, for in February of 1833 the directors announced that the profits from the first year totaled $33,000.[63]

Within a year the railroad had gone from horse-drawn carriages to steam locomotives, and this new mode of transportation showed signs of becoming a prosperous business venture. The stock was selling well above its par value, and the directors had no trouble raising loans to cover the cost of construction. The company would not suffer at the hands of the steamboat line, as had the turnpikes, because the directors of the Citizen's Union Line realized that the railroad was far superior to the old gravel roads, and were aware that it had definite advantages over the Chesapeake

and Delaware Canal in transporting passengers. They would therefore have to move carefully in dealing with the railroad, for it could not be taken for granted.

## CHAPTER VII

## COMPETITION AND DEFEAT

For over half a century the route from New Castle to Frenchtown was a vital link in traveling from the Delaware River to Chesapeake Bay. Between 1811 and 1832 it had evolved from a dirt track to a turnpike, and finally to a railroad. It appeared that the line could look forward to a long period of uninterrupted prosperity. New problems, however, soon arose. The completion of construction and the expenses of running the railroad forced the company deeper into debt, and soon new sources of competition appeared in rival steamboat and railroad lines. The New Castle Railroad fought desperately against its foes, but its struggle was in vain. The line became trapped between a canal to the South and a superior railroad to the North, and these two competitors soon strangled the little railway to death.

The total cost of building the New Castle and Frenchtown Railroad and of purchasing locomotives and carriages totaled $450,222.39, which more than doubled Randel's original estimate.[1] Almost half of this sum was spent in grading the roadbed, but other expenses included laying the track, purchasing materials, building bridges and culverts, and retaining the services of the engineer-in-chief. The actual

operation of the railroad added a new list of outlays, for salaries were paid to drivers, agents, guards, and the engineer; supplies of oats, corn, and hay were needed for feeding the horses; and large quantities of wood, coal, and oil had to be kept on hand to keep the locomotives running.[2]

The company's resources for meeting its accumulated obligations amounted to about $335,000, consisting of $235,250 in original stock and approximately $100,000 from the first two loans, both of which had been subsequently converted into stock. This was manifestly not enough to meet the railroad's debts, and more money had to be borrowed. Since the cost of constructing the New Castle Railroad was small, even in comparison with other early railroads, most of this money was obtained from individuals; the company neither had to appeal for government assistance nor to borrow money from commercial banks. A small loan of $20,000 was subscribed by the stockholders in the spring of 1832, and the loan certificates were converted into capital stock.[3] During the summer the directors secured another loan of $89,450; Richard Willing made the largest personal contribution of $15,646.94, but D. W. Francis, Thomas Rogers, Molten C. Rogers, James Booth, Joseph B. Stevenson, William McDonald and Son, Samuel Dickinson, Elizabeth Penn Gaskill, William Short, Alex Bariny, and William Bingham all loaned sums ranging from $1,500 to $10,000.

The Citizen's Union Line contributed $25,000. The certificates issued for this loan were not convertible into stock, but an annual interest of 6 per cent was paid on them.[4]

In the fall of 1832 the officers secured still another private loan for which a yearly interest of 6 per cent was paid, but the actual amount of the new obligation is unknown.[5] Undoubtedly it enabled the company to pay its debts, for there is no indication of further borrowing. In October, however, the directors attempted to make company stock more available to prospective investors by empowering Lewis to be in charge of transferring New Castle and Frenchtown Railroad shares in Philadelphia. Prior to this all such transfers had been made in New Castle, with the result that the stock of such institutions as the City Bank of New Orleans and the Commercial Bank of Cincinnati had been more easily available to Philadelphians than that of the railroad, which was only forty miles away.[6]

Although the company had borrowed heavily, the public was unaware of this, and the value of the stock rose to new heights after the railroad was opened. In a further effort to strengthen general confidence in the railroad, the directors declared a dividend of 4 per cent on the capital stock in August, 1832. The legitimacy of this issue was open to question, however, for $10,000 had been borrowed from the

Steam Navigation Company to pay for it.[7] When Thomas Janvier learned how the dividend had been made possible, he sharply criticized the company's action. Lewis then accused him of being disloyal to the railroad, but Janvier was perfectly correct in believing the directors' decision to be unsound from a business point of view.[8] Yet the early dividend and the heavy traffic of the first year did increase general confidence in the company, for by December the stock was valued at $43 a share. Lewis believed that within the next year it would reach $50.[9]

In January of 1833 the directors appealed to the Delaware Legislature for four new privileges: to increase the railroad's tolls, to abandon the turnpike, to own steamboats, and to have the exclusive privilege of operating a railroad between the waters of the Christiana River and Appoquinimink Creek in New Castle County. It was feared that the tolls were not high enough to cover the cost of running and maintaining the railroad at a profit to the stockholders, and that the turnpike would be nothing but a financial burden to the company unless it were turned over to the state.[10] The most pressing problem, however, was the fear of two new rivals. Delaware had chartered the Wilmington and Susquehanna Railroad Company in 1832 to construct a railway from Wilmington to the Susquehanna River. This company was to

serve with three others, which had been chartered by Pennsylvania and Maryland, in forming a single line from Philadelphia to Baltimore.[11] If this project were completed, it would provide serious competition and might even force the New Castle and Frenchtown Railroad out of business. It was also known that the People's Steam Navigation Company was to be chartered by the Delaware Legislature at the 1833 session, and that this company was to run steamboats by way of the Chesapeake and Delaware Canal. Some suspected, however, that the People's Line might build a railroad across the peninsula.[12] To prepare for the coming competition, the railroad directors wanted the privilege of owning a line of steamboats, as well as the protection of a monopoly to prevent any other companies, with the exception of the Wilmington and Susquehanna, from building railroads across Delaware.

Lewis and Stockton journeyed to Dover on January 9, 1833, to lobby for the supplement. Their job was not an easy one, for strong opposition arose to the company's request for a monopoly and the power to own steamboats. The People's Line submitted counter-petitions, arguing that the railroad had not been intended to own steamboats and that a monopoly was a violation of free enterprise.[13] A People's Line agent named Sayton was sent to Dover, where he worked against the railroad bill for several days before it was discovered that

he was a paid attorney. After two weeks of bitter struggling, the supplement was finally passed. "Lies, intrigues, low cunning, numerous committees, in fact everything that could be thought of was put in motion," Lewis related, "but we overcame them all."[14]

The supplement gave the New Castle and Frenchtown Railroad Company the sole right of operating a railroad between the Christiana River and Appoquinimink Creek, but in return the company had to agree to accept $25,000 worth of state-owned Chesapeake and Delaware Canal Company shares and to pay the state an annual interest of 6 per cent on this stock. The company also had to pay the state one-half of one per cent interest annually on its own capital stock. The monopoly was to last for twenty years, after which the railroad company was either to return the canal shares to the state or to pay the latter the par value of the stock. In order to purchase steamboats, the company was empowered to increase its operating capital by $250,000. Finally, it was provided that passengers could be charged 10 cents per mile for using the railroad, and the fee for carrying freight was increased to 6 cents per cubic foot.[15]

The railroad officers had been considering the possibility of owning steamboats for several years. In September of 1831, Lewis had written to a New York steamboat owner,

inquiring about the possibility of purchasing a number of vessels,[16] and in the following January the company had unsuccessfully petitioned the Delaware Legislature for the power to own steamboats.[17] The directors were not dissatisfied about their arrangement with the Steam Navigation Company, but they had no guarantee that this firm would continue to use the railroad year after year. Without steamboats conveying passengers to and from New Castle and Frenchtown, the railroad would be useless.

Even while Lewis and Stockton were struggling to obtain the supplement of 1833, some of the railroad officials had already begun making arrangements to acquire steamboats. On January 16, five railroad directors wrote to the officers of the Steam Navigation Company, offering to merge the two companies by issuing two shares of railroad stock for each share of steamboat stock. These railroad directors were not acting in an official capacity, but merely in their own behalf, and they would consider their offer binding only until March 1.[18] Within three days the steamboat company accepted the proposal.[19] When the supplementary act had been passed, the railroad directors approved it and began to work out arrangements with the Steam Navigation Company for a merger. After several weeks of planning and negotiating, the two companies agreed to accept the original offer of the five

railroad directors:

> Be it therefore resolved that the stockholders of the said Pennsylvania, Delaware, and Maryland Steam Navigation Company will in such manner and within such time as the directors of the said company and the directors of the New Castle and French Town Turnpike and Railroad Company may designate transfer and assign their respective shares of the capital stock in the said Pennsylvania, Delaware, and Maryland Steam Navigation Company upon consideration that the said stockholders shall respectively receive for every and each share of stock so transferred and assigned two shares of stock of the said New Castle and Frenchtown Turnpike and Rail Road Company.[20]

A number of weeks passed before all the details of the merger were completed. At first the steamboat company had refused to surrender its surplus fund, but after the railroad corporation offered to abandon a debt owed by the old Union Line to the New Castle and Frenchtown Turnpike Company, the steamboat directors agreed to include the surplus fund in the merger.[21] By April 17 the arrangements were complete, and a committee was appointed to call in the steamboat stock and issue railroad shares in exchange for it.[22]

While the railroad and steamboat directors were preparing the terms of amalgamation, the officers of the People's Line were making every effort to have their steamboats in operation by May, 1833. They had agreed with the canal company to run a single line of passenger barges for $10,000 a year.[23] The railroad directors realized that they would have

a serious competitor, and opened the railroad for full service as soon as the Delaware and Elk rivers began to thaw in late February. If they could provide efficient and courteous service for several months before the People's Line began to run, they might engender more support for the railroad. Lewis was therefore quite upset on March 3, when he learned that several days earlier a heavy snow storm had blocked the railroad and forced the agents to send passengers over the old turnpike on sleighs.[24] After Nevins had been told of the situation, he went to New Castle, where he urged that the tracks be cleared immediately. That very night Edward Young, the engineer, took a crew of seventeen men and opened the entire road, clearing drifts as high as three feet in some places. Because the night was bitterly cold, all the men suffered frostbites and it was feared that one worker would lose his toes.[25] Lewis and Nevins, however, had succeeded in their purpose; the locomotives were able to make their regular trips the following day.

During March and April the railroad was widely used, as 200 passengers usually crossed it each day; sometimes a locomotive pulled as many as eleven passenger carriages and four baggage cars.[26] For the most part the railroad provided satisfactory service, but one day in April, as the train was speeding over the tracks, a cow stepped in front of the

locomotive and was instantly killed. One car was thrown off the tracks, but fortunately no one was hurt.[27] To prevent similar accidents from occurring in the future, a system of signals was quickly established. High posts were erected at convenient intervals along the track, and when the train approached one post a flag would be hoisted on it to notify the guard at the next station that the train was on its way. Flags of various colors were used, some indicating that the train had been delayed, others that it was on time. Gates were erected at each intersection where a road crossed the tracks, and when the flag signal warned that the train was coming, a guard would close the gate.[28]

On May 4 the competition feared by the railroad materialized when the People's Line began to run the steamboat Ohio on the Delaware River and the Kentucky on Chesapeake Bay. The editor of the Delaware Gazette and American Watchman supported the new line by writing, "To those who would escape the sparks and cows on the railroad and withal would travel without quite annihilating space, this line will afford an easy and pleasant communication between Baltimore and Philadelphia."[29] Even before the new line had been officially opened, a state of severe rivalry was clearly in existence. On May 1 the steamboats Robert Morris of the railroad company and the Ohio of the People's

Line raced from Philadelphia to New Castle.[30] This was a foolish and dangerous practice, for the steamboat boilers might have exploded, and when the vessels were run at top speed they were more liable to hit obstructions in the river. Nevertheless, the races continued for several weeks. Neither boat greatly outdistanced the other while on the Delaware, but because of the speed of the railroad, the steamboat of the Citizen's Union Line usually arrived in Baltimore an hour and a half to three hours ahead of its rival.[31] The Philadelphia and Wilmington newspapers quickly and properly condemned these races, and by the middle of May the two companies were running their steamboats at different hours.[32]

Speed, however, was not the only available means of competition. After one day of operation, the People's Line cut its rates from $4.00 to $3.00 for making the entire trip from Philadelphia to Baltimore. The railroad corporation immediately struck back by lowering the price to $2.00, and within a week the People's Line was also charging $2.00.[33] These prices were maintained throughout the rest of the year, and the companies next resorted to service competition. The railroad company began to run a second daily line of steamboats in hopes of taking more business away from its rival.[34] The People's Line then established stagecoach service to Milford in southern Delaware, hoping that the stages would

draw the business of the lower counties to the Chesapeake and Delaware Canal.[35] To be sure that they would always be protected against interruptions in their schedule, the railroad officials arranged to import another locomotive from Robert Stevenson, receiving the new engine by the end of the summer.[36]

Publicity could be used as an effective weapon in the struggle between the two companies, and here the People's Line proved more alert than the railroad company. In late May it was learned that President Andrew Jackson was to tour the northern states, and each organization invited him to use its line in making the trip from Baltimore to Philadelphia. Because the People's Line made the first offer, Jackson accepted it. James Booth was disappointed, but sarcastically noted that "The man of the people ought to go in the Line of the people."[37]

Both companies enjoyed a thriving business during the summer; on some days their steamboats carried more than 500 passengers.[38] Sunday excursions were especially popular, and both the railroad and the canal reported that as many as 600 passengers were sometimes on hand for the Sunday trips. Because the cars were so crowded during the excursions, some railroad officials feared there would be a serious accident, especially since many of the passengers from Philadelphia

were usually in a frolicsome mood.[39] By the end of the summer it appeared that the canal line was beginning to dominate the freight service, but that passenger service was increasing on the railroad.[40]

Many Delawareans supported the People's Line because of the monopoly that had been granted to the railroad. During the Jacksonian era there was widespread resentment against monopolies throughout the country, for they were looked upon as instruments of unfair economic privilege and violations of the right of private enterprise.[41] "That watch-word 'Monopoly' (and one half of those who use it don't understand what it means) has such a magical influence," James Booth lamented, "that I believe it would be sufficient, to give some of us a passport to the Devil--if they had the power to send us."[42] A number of letters appeared in the Delaware Gazette under the name "Anti-Monopoly," pointing out that only the People's Line was preventing the railroad company from charging excessively high prices and providing poor service.[43] There was much truth in the argument, for the competition of the People's Line had forced the railroad and steamboat firm to lower its manifestly high charge of $4.00. Furthermore, the railroad officials' attempts to run their trains strictly on time and to provide passengers with the most courteous and efficient service were obviously

motivated at least in part by the threat from the competing company.

No record has been found of the profits made by the railroad corporation during the year of sharp competition with the People's Line, but the directors did declare a dividend, and paid the interest due on the company's various loans.[44] Yet the People's Line had captured a large part of the traffic on the Delaware and the Chesapeake, and by the end of the year the railroad directors wanted to curb the competition, increase the passenger fare from $2.00, and enlarge the railroad's business. In November the canal officers were thinking along similar lines. Caleb Newbold, a canal company director, informed James Booth that his company was willing to let the railroad have a monopoly on passenger service if the canal could get all the freight business. Booth was warned that this proposal must be kept strictly secret, for although Newbold had not been authorized by his fellow canal directors to make the offer, he was sure the arrangements could be easily worked out.[45] Newbold simply wanted to know if the railroad directors were interested, and he soon discovered they enthusiastically favored it. "It will secure us against all opposition," Booth pointed out, "and give us the whole travelling between the two cities. The loss of freight is certainly but a small item

compared with the importance to our concern of having all the passengers."[46]

In 1834 a shrewd arrangement was worked out between the canal and railroad companies. In January the directors of the People's Line inquired about what arrangements they could make for using the canal during the coming year.[47] Apparently the People's Line was not in sound financial shape and wanted the canal to lower its high charge of 1833, but the canal directors were not accommodating. They provided that a single line of passenger barges could be run through the waterway daily over a six-month period for $6,000, and stipulated that $1,000 was to be paid for each additional month. A minimum of $6,000 would have to be paid regardless of how long the canal was used.[48] This offer was too high for the directors of the People's Line, and they tried to have it reduced.

The railroad directors then made a proposal to the canal company which was designed to force the People's Line away from the canal. The railroad would accept the canal's terms for running passenger barges for 1834; but if no other company conveyed passengers through the channel, the railroad would pay the canal $15,000 a year as long as this arrangement was maintained.[49] The canal officers unanimously accepted. The People's Line was then informed that the canal

would not change its original offer, and was thus forced to abandon the canal.[50] By this conspiracy the canal officials had betrayed the People's Line. The railroad directors had no intention of actually sending passengers through the canal, but were simply insuring their company against competition.

It was fortunate for the railroad company that it had removed its most serious competitor, for on March 5, 1834 it suffered a serious loss. As the William Penn was returning from New Castle, carrying about 150 passengers, a fire broke out in the boiler room. A hole was cut through the upper deck and water thrown onto the fire, but it soon raged out of control, and the boat had to be run onto the shore. Amid the confusion and excitement four of the passengers became panicky, jumped into the river, and were drowned.[51] Although this fire was an accident, the publicity certainly did not help the company, and a new steamboat had to be purchased.

The People's Line attempted to fight back during 1834. In April it established a line of stages to convey passengers across the peninsula, but the railroad was far superior to this outdated mode of transportation.[52] The supporters of the People's Line then began to consider the possibilities of building a railroad, for they pointed out

that the New Castle and Frenchtown Railroad's monopoly only prohibited other companies from establishing a railroad on which steam locomotives were to be run; it made no mention of a railroad for horse-drawn carriages. Their argument was based on the wording of the 1833 supplement: "that it shall not be lawful for any other person or persons, body politic or corporate, to construct any other rail-way, or road to be used or travelled by locomotive engines, or engines propelled by steam."[53]

The proposed venture of the People's Line worried so many of the stockholders of the New Castle and Frenchtown Railroad that the directors found it necessary to issue a pamphlet in May of 1834 in an effort to assure the investors in the railroad corporation that no other company could build a competing line between the Christiana and the Appoquinimink. This tract held that the case of the People's Line was absurd, for the monopoly provided that no railroad of any description could be constructed within the specified area. The railroad's argument was based on the case of the Wilmington and Susquehanna Railroad, which was the one exception to the monopoly; the fact that the act permitted only the Wilmington and Susquehanna to be built, it was argued, conclusively proved that no other railroads were to be allowed in the area.[54] It is hard to determine if the law did exclude

every kind of railroad, for the wording of the act was never interpreted by a court of law; even if a horse-drawn railroad had been constructed, however, it could not have competed effectively with steam locomotives.

After the publication of this pamphlet, the enthusiasm for building the rival railroad waned for several months. The fight reopened in August, however, when a letter appeared in the Delaware Gazette asking what had happened to the plans of the People's Line. "Do they mean to remain supine, and let the notice of the other Company, pronouncing so preemptorily that they have no right to construct a Rail Road, have its desired effect? I hope not." The author renewed the arguments for building a rival railroad, and initiated a new attack by urging the people of Delaware to demand that the legislature revoke the monopolistic privilege granted to the New Castle and Frenchtown Railroad.[55]

In September the agents of the People's Line again appealed to the Chesapeake and Delaware Canal Company to work out adequate arrangements for the following year. The canal officials replied that their conditions would be the same as those of the past year, and that they would not consider negotiating until the People's Line had paid the full debt it owed the canal from 1833.[56] Throughout the remainder of the year more attacks appeared in the Wilmington newspapers

supporting the proposed railroad of the People's Line and condemning the monopoly of the New Castle and Frenchtown Railroad.[57] Thomas Stockton, who had been appointed manager of the railroad, was accused by "Janius" of being negligent in his duties. "Janius" did not specifically mention what Stockton was guilty of, and his letters were intended primarily as an attack upon the monopoly. In one of his most intense assaults, he addressed the directors of the railroad:

> But, let me tell you gentlemen, the spirit of resistance has aroused itself every where against MONOPOLIES of every description, and you have united the whole people of this state against you, on one grand constitutional point, and the consequence of this attack upon the constitution and the rights and liberties of the people, are too plain and palpable not to alarm the dullest apprehension.[58]

Despite these efforts, the People's Line was unsuccessful in obtaining a charter to construct a railroad, and by 1835 it had apparently ceased to exist.

The New Castle and Frenchtown Railroad Company thus defeated its first serious competitor, and from 1834 until the summer of 1837 it remained unchallenged. Although no records have been found for this period, it can safely be assumed that the railroad enjoyed its most flourishing years; the company paid handsome dividends to its stockholders, and it was estimated that in a single year the railroad carried 100,000 passengers.[59] Even during the brief era of prosperity,

however, four small railroads were being built which would eventually force the New Castle line out of business.

As early as 1831 a group of far-sighted Philadelphia capitalists had hoped that a railroad could be built from Philadelphia to Baltimore. Such a road would have many advantages over the steamboat route, for it would be faster; more efficient; capable of operating throughout the year; and able to connect many of the larger towns along the route. Between April, 1831 and March, 1832, Pennsylvania, Delaware, and Maryland chartered four companies to build railroads between Baltimore and Philadelphia. Although these companies were independent, they planned to cooperate in forming a single line between the two cities. All of the companies failed in their first efforts to raise the necessary funds, but interest in the project was revived in 1835, when the various units were successfully capitalized and construction was begun.[60]

The backers of the New Castle Railroad realized that the completion of the new line would seriously threaten the very existence of their own company. Lewis therefore wrote to James Booth on February 12, 1833, pointing out that it would be wise to apply to the Delaware Legislature for the power to build a track from New Castle to Wilmington. This might solve two major problems. At the time, the people of

Wilmington were demanding that the county courts be moved to their city, and the New Castle inhabitants were fighting to keep them in their own municipality. Lewis believed that a branch line to Wilmington would help New Castle retain the courts, and also "would extinguish the Wilmington and Susquehanna Rail Road concern at a single blow, diverting at once all the travel to the south by way of our road."[61] Lewis's suggestion was not immediately adopted, and it was not until 1837 that the New Castle railroad directors appealed for the power to lay a track to Wilmington. In this attempt they were soundly defeated by the Wilmingtonians.[62]

By May of 1837 the New Castle company had constructed a second track parallel to the original one, so that the trains would never have to be delayed on sidings and the trips could be made more quickly. This was of little value, however, for by the following July two of the rival railroads had been completed from Baltimore to Wilmington and were opened for full service; a steamboat conveyed the passengers the remainder of the way to Philadelphia. This line was superior to the New Castle route from the outset. In December of 1837 the final railroad was completed from Philadelphia to Wilmington, and in the following year the independent lines merged to form a single corporation--the Philadelphia, Wilmington, and Baltimore Railroad Company.

The New Castle and Frenchtown Railroad attempted to compete with this powerful foe until 1843, when it was finally absorbed by its rival.[63]

The failure of the New Castle and Frenchtown Railroad was due in no part to its construction or management, but rather to the rapidity of economic change. At the time this company was formed, its supporters did not foresee the extent to which railroads could be developed within a few years. In 1827 both the Wilmington and New Castle railroad enthusiasts saw no further than the possibility of building a railroad across the Delmarva Peninsula to connect with steamboats, as the old turnpikes had done. No one dreamed that a railroad could be built all the way from Philadelphia to Baltimore, but within ten short years such a project had been completed. The New Castle and Frenchtown Railroad was outmoded only a decade after its inception.

# ILLUSTRATIONS

The New Castle and Frenchtown Railroad, The Chesapeake and Delaware Canal, and the Philadelphia, Wilmington and Baltimore Railroad, 1838, from Map Collection (University of Delaware Memorial Library).

Turnpikes from New Castle to Frenchtown, 1824, from Map Collection (University of Delaware Memorial Library).

# APPENDICES

# APPENDIX A*

Stockholders in the New Castle Turnpike Company, April 8, 1811

| | |
|---|---|
| Kensey Johns | $125.00 |
| Nicholas Vandyke | 125.00 |
| Jas. A. Bayard | 125.00 |
| Outerbridge Horsey | 125.00 |
| John Vandyke | 125.00 |
| Hugh W. Ritchie | 250.00 |
| James McCallmont | 125.00 |
| Hugh Gemmell | 125.00 |
| Isaac Granthem | 125.00 |
| Samuel Nevin | 125.00 |
| James Couper, Jr. | 125.00 |
| Rich. Sexton | 125.00 |
| Guy Stone | 125.00 |
| Alex. Timister | 125.00 |
| Thomas Turner | 125.00 |
| Jeremiah Bowman | 125.00 |
| John Alexander | 125.00 |
| John Wiley | 125.00 |
| Thomas Janvier | 125.00 |
| Alexander Jemison | 125.00 |
| Henry Rowen | 125.00 |
| Joseph Sawyer | 125.00 |
| Christopher Temmerman | 125.00 |
| Jacob Belville | 125.00 |
| Jesse Devon | 125.00 |
| William Kennedy | 125.00 |
| Adam Duhl | 125.00 |
| Abraham Vandyke | 125.00 |
| Benjamin Marley | 125.00 |
| James Rogers | 125.00 |
| John Crow | 125.00 |
| Thomas Higginson | 125.00 |
| John Janvier | 125.00 |
| Thomas Janvier | 125.00 |
| Edward McCullough | 125.00 |
| George Pierce | 125.00 |
| Charles Thomas | 125.00 |
| John Aull | 125.00 |
| John D. Eves | 125.00 |
| John Penton | 125.00 |
| Philip Cavender | 125.00 |

*Source: Account Book of the New Castle Turnpike Company

Stockholders in the New Castle Turnpike Company, April 8, 1811
(Continued)

| | |
|---|---|
| John Hensey | $125.00 |
| Charles Allen | 125.00 |
| Jonathan Kelly | 125.00 |
| John [?] | 125.00 |
| Neil Campbell | 125.00 |
| John Dempsey | 125.00 |
| Alexd. Harvey | 125.00 |
| Moses Gurlen | 125.00 |
| Enoch Anderson | 125.00 |
| Michael King | 125.00 |
| T. M. Forman | 125.00 |
| Henry Colesberry | 125.00 |
| Thomas Bond | 125.00 |
| George Read | 125.00 |
| Martin Kennedy | 125.00 |
| John Magery | 125.00 |

# APPENDIX B*

## List of Stockholders in the New Castle and Frenchtown Turnpike Company

| Name | Shares |
|---|---|
| Andrew Barraby | 10 |
| Jacob Bilville | 5 |
| Samuel H. Black | 20 |
| Henry Bommant | 20 |
| Nathan Boulden | 10 |
| George Clark | 40 |
| William G. Caulk | 14 |
| James Couper | 20 |
| Esther Gaw | 20 |
| John Gord n | 15 |
| Frisby Henderson | 50 |
| John Janvier | 50 |
| Thomas Janvier | 40 |
| Kensey Johns, Jr. | 25 |
| William Moore | 10 |
| Comms. of roads of N.C. Hundred | 100 |
| Comms. of roads of Pencad/er/ Hundred | 100 |
| William Polk | 35 |
| George Read | 13 |
| Richard Sexton | 30 (or 36) |
| Owners of boat Chesapeak | 100 |
| Bankson Taylor | 50 |
| Jeremiah Taylor | 18 |
| James Snow | 40 |
| Lewis Thomas | 40 |
| N. C. & F. Town Turnpike Co. | 80 |
| Abraham S. Eves | 1 |
| Debrah H. Marsh | 24 |
| Anthony Groves | 3 |
| Samuel Richards | 8 |
| Bank of No. America | 10 |
| Mechanics Bank | 7 |
| Edward Thompson | 3 |
| C Holland, age assigned | 8 |
| E. Channcey | 20 |
| Philip Smith | 22 |
| Ephriam Clark | 46 |

*Source: Minute Book of the New Castle and Frenchtown Turnpike Company, n.d.

List of Stockholders in the New Castle and Frenchtown Turnpike Company
(Continued)

| Name | Shares |
|---|---|
| James Arrott | 7 |
| Charles Perry, Co. | 5 |
| William Mackason | 2 |
| Mrs. Risdels | 3 |
| Bank of United States | 30 |
| Williams C. Cardwell | 1 |
| Jane Bowie | 5 |
| John Lambert | 66 |
| Andrew F. Henderson | 50 |
| William Kirk | 5 |
| John Moody | 45 |
| Chambers Gaw | 82 |
| Wilman Whillden | 88 |
| John Read, Phila. | 16 |
| Elizabeth Field | 12 |
| Lasama Priest | 7 |
| Elizabeth Marsh, Widow | 12 |
| Joseph Boyd | 7 |
| Total | 1,500 |

# APPENDIX C*

## List of Stockholders in the New Castle and Frenchtown Turnpike and Rail Road Company, May 7, 1832

| Names | Original stock | Converted stock |
|---|---|---|
| James R. Black | 7 | |
| James Booth | 45 | 10 |
| C. D. Blaney | 62 | 14 |
| James Couper | 30 | |
| John Caldwell | 5 | |
| Susan Caldwell | 10 | |
| Sarah Downes | 5 | |
| Kensey Johns | 32 | |
| Kensey Johns, Jr. | 20 | 6 |
| Geo. F. McCallmont | 5 | |
| John L. Morris | 2 | |
| Maria Morris | 2 | |
| John Moody | 120 | 120 |
| Comm. of Roads of N.C. Hundred | 330 | |
| George Pierce | 2 | |
| James Rogers | 225 | 51 |
| Goerge Read | 1 | |
| James Riddle | 10 | |
| Elizb. L. Kran | 10 | |
| Sophia Kelton | 10 | 2 |
| Joseph Tatlow | 5 | |
| James Arrott | 7 | |
| William Day | 5 | 1 |
| William G. Caulk | 16 | |
| E. Chauncey | 20 | 4 |
| Ann J. Cuthbert | 4 | |
| Sarah L. Cuthbert | 4 | |
| Susan E. Cuthbert | 4 | |
| Wm. C. Cardwell | 1 | |
| Abraham L. Eves | 1 | |
| Esther Gau | 20 | |
| John Gordon | 15 | |
| Chambers Gau | 82 | 23 |
| Hugh Gourby | 22 | 5 |
| Frisby Henderson | 150 | 33 |
| Andrew F. Henderson | 175 | 39 |
| Thomas Hale | 50 | |
| Comms. of Roads Pencader Hd. | 100 | |

*Source: New Castle and Frenchtown Railroad Papers, Folder I.

List of Stockholders in the New Castle and Frenchtown Turnpike and Rail Road Company, May 7, 1832
(Continued)

| Names | Original stock | Converted stock |
|---|---|---|
| A. F. Henderson in Trust | 125 | 29 |
| William Macksaon | 2 | |
| Elizabeth Marsh, Widow | 12 | |
| Owners of S. Boat Chesapeake | 100 | 23 |
| Charles Perry | 5 | |
| Mrs. Risdel | 3 | |
| Thomas Stockton | 2 | |
| Bankson Taylor | 58 | 13 |
| Joseph Smith | 108 | 24 |
| William J. Watson | 229 | 51 |
| John D. Bird | 10 | 2 |
| James M. Bird | 10 | 2 |
| Jas. Booth, in trust for self | 80 | 18 |
| Mary Black | 18 | |
| Sarah Campbell | 4 | |
| Sam. Carpenter | 7 | 2 |
| Exss of Benj. Ferguson decd. | 50 | 11 |
| James Couper, Jr. | 10 | |
| Samuel M. Couper | 10 | |
| William Couper | 172 | |
| Jacob Faris | 4 | |
| Wm. B. Janvier | 20 | 6 |
| John Johns | 20 | |
| Kensey Johns | 25 | 5 |
| Edmund Lynch | 25 | 6 |
| John Peach | 1 | |
| Edu. Pummell, Jr. | 5 | 1 |
| Wm. W. Polk | 25 | |
| Thomas W. Rogers | 50 | 11 |
| James Smith | 40 | 9 |
| James N. Sutton | 5 | |
| H. J. Terry | 40 | 10 |
| Hannah Turner | 16 | |
| Jas. Booth, in trust for Im. Church | 120 | 27 |
| William Y. Birch | 50 | |
| Am. Craig | 20 | 4 |
| George M. Hickling | | 100 |
| William Denny | 2 | |
| Alex. P. Darragh | 100 | |
| Charles Dixey | 150 | |
| David Hill | 64 | 6 |
| Jos. P. Homer, in trust | 12 | |
| Joseph Hend | 30 | |

List of Stockholders in the New Castle and Frenchtown Turnpike and Rail Road Company, May 7, 1832
(Continued)

| Names | Original stock | Converted stock |
|---|---|---|
| Samuel Johnson | 10 | |
| James Lovigrove | 2 | |
| James LeFevre | 131 | 30 |
| H. I. Lives | 691 | 5 |
| Andres McIntire | 8 | |
| Samuel Nevins | 20 | |
| William Peterson | 87 | 13 |
| George Rundle | 163 | |
| Molten C. Rogers | 300 | 67 |
| Jonathan Smith | 100 | |
| Joseph Togno | 25 | |
| Nevins & Towmend | 536 | |
| John Cook | 100 | |
| R. A. Caldclugh | 228 | |
| Benjamin Tevis | 448 | |
| Peter Pettinos | 203 | |
| Richard Willing | 287 | 109 |
| Sam. Nevins, in trust | 150 | |
| Elihu Chaunery | 278 | |
| Georg. Rundles, in trust | 383 | |
| Morgan Ash | 20 | |
| Edward C. Dale | 100 | |
| Dorthy Dale | 100 | |
| George C. Read | 100 | |
| Joseph Howard | 100 | |
| William McDonald | 275 | |
| Samuel McDonald | 400 | |
| William L. Booth | 100 | |
| Rebecca Newell | 40 | |
| William Meeteer | 25 | |
| B. P. Hutchinson | 60 | |
| Wm. M. McDonald | 25 | |
| Miss. Hannah Webb | 25 | |
| Robert Sedgwick | 61 | |
| Wm. McDonald, in trust | 75 | |
| J. W. Odenhimer | 50 | |
| Robert McMullen | 50 | |
| John E. Couper | 23 | |
| Arternon Hill | 80 | 11 |
| Alex. Berrson, & C. | 8 | |
| Wm. R. Vermilge | 50 | |
| Coleman Fisher | 100 | |
| Tho. Biddle & C. | 300 | |

List of Stockholders in the New Castle and Frenchtown Turnpike and Rail Road Company, May 7, 1832
(Continued)

| Names | Original stock | Converted stock |
|---|---|---|
| James Couper | 78 | |
| Mr. Elvi Caldwell | 5 | |
| William D. Lewis, in trust | 10 | |
| U. States Insurance Co. | 200 | |
| Wilson Hunt | 50 | |
| Jacob B. Clemont | 20 | |
| Alex Lardner | 20 | |
| John Diamond | 36 | |
| Ellen A. Carrell | 81 | |
| Jacob R. Smith | 200 | |
| Edward Harris | 200 | |
| Robert H. Barr | 40 | |
| Comm. W. Bainbridge | 50 | |
| Joseph Lisbey | 40 | |
| Capt. Jos. Jefferies | 20 | |
| Capt. Abisha Jenkins | 33 | |
| Clement S. Hunt | 20 | |
| J.R. Ingersoll & Wm. Miller, Trustees | 200 | |
| Tho. Hale, in trust | 340 | |
| Joseph Swift, in trust | 30 | |
| Aaron O. Shuff | 20 | |
| John A. Brown | 100 | |
| Com. Charles Stewart | 100 | |
| Charles Gwinn | | 20 |
| Edward Williams | | 4 |
| Wm. McDonald & Son | 180 | |
| Wm. D. Lewis | | 225 |

# NOTES TO CHAPTERS

## NOTES TO CHAPTER I

## ROADS, WATERWAYS, AND RAILROADS

1. Edward Channing, A History of the United States (New York, 1917), IV, 5; George Rogers Taylor, The Transportation Revolution, 1815-1860 (New York, 1951), p. 5.

2. Joseph Austin Durrenberger, Turnpikes: A Study of the Toll Road Movement in the Middle Atlantic States and Maryland (Valdosta, 1931), p. 20; Archer Butler Hulbert, Pioneer Roads and Experiences of Travelers (Cleveland, 1904), p. 68.

3. Wheaton J. Lane, "The Early Highway in America, to the Coming of the Railroad," Highways in Our National Life: A Symposium, ed. Jean Labatut and Wheaton J. Lane (Princeton, 1950), pp. 69-70.

4. Frederic J. Wood, The Turnpikes of New England and Evolution of the Same through England, Virginia and Maryland (Boston, 1919), pp. 24-25.

5. Durrenberger, Turnpikes, pp. 28-29.

6. Taylor, Transportation Revolution, p. 16.

7. Wood, The Turnpikes of New England, pp. 25-26.

8. Taylor, Transportation Revolution, p. 16.

9. Caroline E. MacGill et al., History of Transportation in the United States Before 1860 (Washington, 1917), pp. 3-4.

10. George Washington to Jacob Read, November 3, 1784, The Writings of George Washington, ed. John C. Fitzpatrick (Washington, 1938), XXVII, 488-489; Channing, History of the United States, IV, 2-3; Edward C. Kirkland, A History of American Economic Life (New York, 1951), p. 219.

11. MacGill, History of Transportation, pp. 9-12.

12. Carter Goodrich, Government Promotion of American Canals and Railroads, 1800-1890 (New York, 1960), p. 28.

13. Ibid., pp. 28-31.

14. MacGill, History of Transportation, pp. 12-18.

15. Lane, "The Early Highway in America," pp. 73-74.

16. Taylor, Transportation Revolution, p. 19.

17. Ibid., p. 20; Goodrich, Government Promotion, pp. 41-42.

18. Goodrich, Government Promotion, p. 42.

19. Ibid., pp. 43-47; Taylor, Transportation Revolution, pp. 21-22.

20. Durrenberger, Turnpikes, pp. 35-36.

21. Wood, Turnpikes of New England, p. 5.

22. Quoted in Durrenberger, Turnpikes, p. 96.

23. Ibid.

24. Joseph Stancliffe Davis, Essays in the Earlier History of American Corporations (Cambridge, 1917), II, 331; the importance of turnpike companies among early American corporations can be seen by the fact that between 1781 and 1800 in the United States there were chartered 2 dock companies, 29 water supply companies, 32 insurance companies, 34 banks, 73 toll bridges, 74 inland navigation companies, and 72 turnpikes. W. David Lewis, "Forms of Business Organization, with Special Emphasis on the Corporation" (Unpublished research report, Eleutherian Mills-Hagley Foundation, 1960), p. 29.

25. Wood, Turnpikes of New England, pp. 30-31.

26. Durrenberger, Turnpikes, p. 40.

27. Ibid., p. 49.

28. Taylor, Transportation Revolution, p. 18.

29. Wood, Turnpikes of New England, p. 10.

30. Carter Goodrich, "National Planning of Internal Improvements," Political Science Quarterly, LXIII (March, 1945), 19.

31. Durrenberger, Turnpikes, pp. 98-104.

32. Taylor, Transportation Revolution, pp. 28-29.

33. Ibid., pp. 26-28; Durrenberger, Turnpikes, pp. 115-116.

34. Taylor, Transportation Revolution, p. 57.

35. Fred Erving Dayton and John Wolcott Adams, Steamboat Days (New York, 1925), p. x; Guy S. Callender, "Early Transportation and Banking Enterprises of the States in Relation to the Growth of Corporations," Quarterly Journal of Economics, XVII (1902), 124.

36. Taylor, Transportation Revolution, pp. 69-70.

37. Ibid. p. 67.

38. Ibid., pp. 68-69.

39. Ibid., pp. 71-73.

40. Charles Hadfield, British Canals: An Illustrated History (London, 1959), pp. 79-91, 180.

41. Taylor, Transportation Revolution, pp. 32-33.

42. Ibid., pp. 33-34.

43. Ibid., p. 98; James W. Livingood, The Philadelphia-Baltimore Trade Rivalry, 1780-1860 (Harrisburg, 1947), p. iii.

44. Taylor, Transportation Revolution, p. 37.

45. Ibid., pp. 49-50.

46. Ibid., p. 49.

47. Ibid., pp. 52-55.

48. Seymour Dunbar, A History of Travel in America (New York, 1937), p. 874.

49. Ibid., pp. 889-890.

50. Stuart Daggett, Principles of Inland Transportation, 3rd ed. (New York, 1941), p. 62.

51. Dunbar, History of Travel, p. 902.

52. Lewis Henry Haney, A Congressional History of Railways in the United States to 1850 (Madison, 1908), p. 248; Arthur Twining Hadley, Railroad Transportation: Its History and Its Laws (New York, 1885), pp. 12, 40; Frederick A. Cleveland and Fred Wilbur Powell, Railroad Promotion and Capitalization in the United States (New York, 1909), pp. 48-50.

53. Haney, Congressional History of Railways, pp. 77-78; Dunbar, History of Travel, p. 933.

54. Haney, Congressional History of Railways, p. 38; Dunbar, History of Travel, p. 912.

55. Haney, Congressional History of Railways, pp. 58-59.

56. Daggett, Principles of Inland Transportation, pp. 58-59; W. Hasell Wilson, A Brief Review of Railroad History: From the Earliest Period to the Year 1894 (Philadelphia, 1895), pp. 9-19.

57. Haney, Congressional History of Railways, pp. 25-26.

58. Taylor, Transportation Revolution, pp. 74-75; Dunbar, History of Travel, pp. 74-75.

59. Taylor, Transportation Revolution, p. 85.

60. Jack C. Potter, "The Philadelphia, Wilmington and Baltimore Railroad, 1831-1840: A Study in Railroad Transportation," Unpublished Master's Thesis, University of Delaware, 1960, p. 14.

61. Thomas C. Cochran and William Miller, The Age of Enterprise: A Social History of Industrial America (New York, 1951), p. 68.

62. Taylor, Transportation Revolution, p. 88.

63. Ibid., p. 98.

64. Ibid., p. 88.

65. Ibid., pp. 90-91.

66. Ibid., p. 92.

67. Ibid., p. 100.

68. Leland H. Jenks, "Railroads as an Economic Force in American Development," The Journal of Economic History, IV (1944), 8; Potter, "The Philadelphia, Wilmington and Baltimore Railroad," p. 15.

69. Haney, Congressional History of Railways, p. 110.

70. Taylor, Transportation Revolution, p. 95; the encouragement given to railroad engineering as a result of the Survey Act of 1824, Forest G. Hill has concluded, was even more important to the development of American railroads than the actual financial benefits of the act. Forest G. Hill, "Government Engineering Aid to Railroads Before the Civil War," The Journal of Economic History, XI (1951), 235-246.

71. Haney, Congressional History of Railroads, pp. 139-140, 151, 304, 307.

72. Ibid., pp. 129-130.

73. David Stevenson, "Railways in America in 1837," The Railway Library 1915, ed. Slason Thomas (Chicago, 1916), p. 7.

74. Dunbar, History of Travel, pp. 883-884.

75. T. W. Van Metre, Trains, Tracks and Travel, 7th ed. (New York, 1946), pp. 68-69.

76. Taylor, Transportation Revolution, p. 79.

77. Ibid., pp. 86-88; Carter Goodrich, "The Revulsion against Internal Improvements," Journal of Economic History, X (1950), 168-169.

78. Jenks, "Railroads as an Economic Force," pp. 6-7; Cochran and Miller, Age of Enterprise, p. 47.

## NOTES TO CHAPTER II

## TURNPIKES ACROSS THE PENINSULA

1. Durrenberger, Turnpikes, p. 81.

2. Federal Writers' Project, New Castle on the Delaware (New Castle, 1936), pp. 42-43.

3. Ibid., p. 43; John H. K. Shannahan, Steamboat'n' Days & the Hammond Lot: An Eastern Shore Romance (Baltimore, 1930), p. 5. During the eighteenth century individuals frequently owned and operated small packet lines.

4. John A. Munroe, "The Philadelawareans: A Study in the Relations Between Philadelphia and Delaware in the Late Eighteenth Century," Pennsylvania Magazine of History and Biography, LXIX (1945), 131.

5. James Booth to George Read, April 24, 1789, Life and Correspondence of George Read, ed. William Thompson Read (Philadelphia, 1870), p. 477; Duke de la Rouchefoucauld Liancourt, Travels Through the United States of North America, the Country of the Iroquois, and Upper Canada, in the Years 1795, 1796, and 1797, 2nd ed. (London, 1800), III, 539.

6. New Castle on the Delaware, pp. 37, 42-43.

7. Shannahan, Steamboat'n' Days, pp. 5-6.

8. Albert Gallatin, Report on Public Roads and Canals (1808), in American State Papers: Documents, Legislative and Executive, Walter Lowrie and Walter S. Franklin, eds., Class X, Miscellaneous (Washington, 1832), I, 758.

9. Shannahan, Steamboat'n' Days, pp. 6-7.

10. Ibid., p. 7; Gallatin, Report, p. 758.

11. Gallatin, Report, p. 759.

12. John A. Munroe, Federalist Delaware, 1775-1815 (New Brunswick, 1954), pp. 31-32.

13. Ralph D. Gray, "Transportation and Brandywine Industries, 1800-1840," (unpublished research report, Eleutherian Mills-Hagley Foundation, 1957), p. 84.

14. Legislative Petition, Transportation, Delaware State Archives. Hereafter cited as DSA.

15. Ralph D. Gray, "The Early History of the Chesapeake and Delaware Canal," Delaware History, VIII, No. 3 (1959), p. 209.

16. William Kilty et al., The Laws of Maryland (Annapolis, n.d.), III, Act of January 6, 1806.

17. American Watchman, May 4, 1811.

18. Ibid., December 19, 1810.

19. Ibid. Stevens' articles also appeared in the American Watchman on January 12 and 23, 1811.

20. Taylor, The Transportation Revolution, pp. 6-8.

21. Livingood, The Philadelphia-Baltimore Trade Rivalry, pp. 9-10.

22. Articles encouraging turnpike construction appeared in the following: American Watchman, January 21, 1810, February 3, 1810, March 7, 1810, January 11, 1811, September 11, 1813, and October 9, 1813.

23. Durrenberger, Turnpikes, p. 76.

24. Laws of the State of Delaware, IV, 241-242.

25. Ibid., IV, 63. Clark's Corner is now known as Hare's Corner, which is located at the junction of the duPont Highway and Frenchtown Road.

26. Laws of the State of Maryland, IV, Act of January 6, 1810.

27. Laws of the State of Delaware, IV, 241-242.

28. Durrenberger, Turnpikes, p. 76.

29. Laws of the State of Delaware, IV, 246-247.

30. Ibid., pp. 256-257.

31. Ibid., p. 257.

32. Ibid., p. 410.

33. Ibid.

34. Ibid., p. 417.

35. Ibid., p. 420.

36. Account Book of the New Castle Turnpike Company, April 8, 1811, Historical Society of Delaware. Hereafter cited as Account Book.

37. American Watchman, April 13, 1811.

38. Account Book, 1811-1812.

39. Ibid., February 6, 1813.

40. Ibid., July 31, 1813.

41. Laws of the State of Delaware, V, 28.

42. Ibid., March 25, 1816.

43. Ibid., September 1, 1816.

44. Shannahan, Steamboat'n' Days, pp. 8-11; Dayton and Adams, Steamboat Days, p. 302.

45. The exact date of the Janvier's entry into the Union Line is unknown, but by 1815 John Janvier was representing the Union Line in negotiating with the Turnpike Company. Minute Book of the New Castle and Frenchtown Turnpike Company. Hereafter cited as Minute Book.

46. Ibid. July 1, 1816.

47. Laws of the State of Delaware, IV, 598-599.

48. Minute Book, July 1, 1816.

49. Ibid., p. 69, undated entry.

50. Ibid., April 5, 1813; January 18, 1814.

51. Ibid., April 5, 1813.

52. Ibid., January 18, 1814.

53. Durrenberger, Turnpikes, p. 88.

54. Wood, Turnpikes of New England, pp. 37-38.

55. Minute Book, July, 1813.

56. Ibid., May 9, 1816.

57. Ibid., August 3, 1816.

58. Ibid., January 10, 1814; May 20, 1814; Journal of the Senate of the State of Delaware, 1818 (Dover, 1818), pp. 59-60.

59. American Watchman, February 2, 1814.

60. Minute Book, December 27, 1814.

61. Journal of the Senate of the State of Delaware, 1818, pp. 59-60.

62. Minute Book, February 8, 1814.

63. Legislative Petitions, Transportation, DSA.

64. The law of incorporation had provided that the company could collect two-fifths of the legal tolls after two miles of the road had passed inspection. Laws of the State of Delaware, IV, 601.

65. Journal of the Senate of the State of Delaware, 1818, pp. 59-60.

66. Minute Book, July 1, 1816. The reasons for the delay in approving the road are unknown.

## NOTES FOR CHAPTER III

## STEAMBOATS AND STAGES

1. Laws of the State of Delaware, IV, 250-252.
2. American Watchman, October 5, 1811.
3. Minute Book, May 17, 1815.
4. Ibid., March 25, 1819.
5. Delaware Gazette and American Watchman, March 17, 1829.
6. Laws of the State of Delaware, IV, 249-250.
7. Ibid., 415.
8. Minute Book, June 21, 1816.
9. Ibid., April 25, 1816; October 25, 1816.
10. Ibid., April 25, 1816.
11. Ibid., March 10, 1815.
12. Ibid., Undated entry.
13. See below, pp. 104-105.
14. Minute Book, July 1, 1816.
15. Ibid., May 8, 1815.
16. Ibid., July 1, 1816.
17. Ibid.; "Opinion of G/eorge/ Read for the President Managers & Company of the New Castle and Frenchtown Turnpike," Read Manuscripts, Historical Society of Pennsylvania.
18. Minute Book, July 1, 1816.
19. Legislative Petitions, Transportation, DSA.

20. Ibid.

21. Minute Book, July 1, 1816. Prejudice against turnpikes was widespread during the turnpike era. Opposition was on two levels: some resented them because they believed the management of roads was a governmental function and should not be given to private enterprise, and others objected to paying tolls for using a public road. Prejudice against turnpikes, however, never attained serious proportions, nor did it last long. Durrenberger, Turnpikes, p. 81; Wood, Turnpikes of New England, p. 32; American Watchman and Delaware Republican, January 9, 1813.

22. Minute Book, July 1, 1816.

23. Ibid., July 27, 1816.

24. Ibid., May 14, 1817.

25. Ibid., October 18, 1816.

26. Shannahan, Steamboat'n' Days, pp. 12-13.

27. American Watchman and Delaware Republican, May 12, 1813; Delaware Gazette, May 7, 1817.

28. Shannahan, Steamboat'n' Days, pp. 13-15.

29. Legislative Petitions, Transportation, DSA; Minute Book, November 15, 1815.

30. Minute Book, January 29, 1814.

31. Journal of the Senate of the State of Delaware, 1818, pp. 59-60; Minute Book, April 12, 1817, September 7, 1818, April 5, 1819.

32. Minute Book, June 17, 1817, May 14, 1818.

33. Ibid., June 17, 1817.

34. Ibid., November 7, 1817.

35. Ibid., November 18, 1817.

36. Laws of the State of Delaware, V, 528-529.

37. Minute Book, March 18, 1818.

38. Ibid.

39. Ibid., July 22, 1819.

40. See below, pp. 119-120.

41. Account Book, March 25, 1825, September 27, 1825. The increase in tolls is illustrated by the sums reported for the following years: 1817, $649.31; 1818, $501.40; 1819, $801.11½; 1823, $859.01; 1824, $999.56; 1825, $1,003.85.

42. Ibid., 1819-1825; Minute Book, 1819-1830.

43. Laws of the State of Delaware, VI, 61-68.

44. Ibid., pp. 68-71. On the same day the bill to incorporate the college was approved, the Delaware Legislature passed another act that imposed a duty on any "goods, wares, or merchandize," sold by Delaware retailers except those that were grown, produced, or manufactured in the United States. Every merchant who sold such goods was required to purchase a license for $12.00, and the license would have to be renewed each year.

45. Delaware Gazette, February 13, 1821.

46. At this time the United States was in an economic depression following the Panic of 1819. Cochran and Miller, The Age of Enterprise, pp. 11-12.

47. Delaware Gazette, February 2, 1821.

48. Ibid., February 13, 1821.

49. Ibid.

50. Ibid., February 16, 1821, February 20, 1821.

51. Ibid., February 16, 1821.

52. Ibid., February 20, 1821.

53. Ibid., March 2, 1821, March 13, 1821, March 16, 1821, March 23, 1821.

54. Ibid., February 23, 1821.

55. Ibid., March 6, 1821.

56. Ibid., February 27, 1821.

57. Ibid., March 2, 1821.

58. Ibid.

59. Ibid., March 9, 1821.

60. Ibid., March 16, 1821.

61. Ibid.

62. Laws of the State of Delaware, VI, 205-206, 222.

63. Ibid., p. 206.

64. Minute Book, April 12, 1817, September 7, 1818, April 5, 1819.

65. Ibid., 1820-1830.

66. Ibid., March 1, 1824, October 2, 1824, March 3, 1828.

67. Account Book, 1819-1825.

## NOTES TO CHAPTER IV

## CANAL VERSUS RAILROAD

1. Ralph D. Gray, "The Early History of the Chesapeake and Delaware Canal," Delaware History, VIII, No. 4 (1959), 383-397.

2. C. D. Blaney to William T. Read, January 30, 1829, Read Manuscripts, Historical Society of Pennsylvania. Hereafter referred to as Read Manuscripts.

3. Delaware Gazette, January 6, 1826.

4. Ibid., January 25, 1828.

5. J. G. Rowland, James Canby, and Sam Baily to Philip E. Thomas, January 31, 1828, Legislative Petitions, Transportation, DSA.

6. Evan Thomas to Rowland, Canby, and Baily, February 4, 1828, ibid.

7. Laws of the State of Maryland, 1825, Ch. 179.

8. William Meeteer to Rowland, Canby, and Baily, February 3, 1828, DSA.

9. The report was dated February 6, 1828, ibid.

10. Ibid.

11. Delaware Gazette, April 1, 1828. The act chartering this company was not recorded in Laws of the State of Maryland. The company was never chartered in Delaware; apparently the Maryland act would not become effective until a complementary law had been passed in Delaware, as was the case with the New Castle and Frenchtown Turnpike Company. See below, pp. 77-79.

12. Ibid.

13. Ibid., February 26, 1828. The members of the committee were George Read, Jr., Thomas Stockton, and John Janvier.

14. Ibid., March 4, 1828.

15. Journal of the Proceedings of the Senate of the State of Maryland, December Session, 1827 (Annapolis, 1828), pp. 235-236.

16. Acts of Incorporation of the New Castle and Frenchtown Turnpike & Railroad Company, passed by the Legislatures of Maryland and Delaware (Philadelphia, 1837), pp. 5-6.

17. Ibid., p. 8.

18. Ibid.

19. Ibid., pp. 8-9.

20. George Read, Jr. and John Janvier to Rowland and Canby, July 4, 1828; Rowland and Canby to Janvier and Read, July 30, 1828, DSA.

21. Potter, "The Philadelphia, Wilmington, and Baltimore Railroad," p. 20.

22. Maryland had incorporated the Baltimore and Ohio Railroad Company in 1827.

23. Legislative Petitions, Transportation, DSA.

24. William T. Read to C. D. Blaney, February 2, 1829. Read Manuscripts, The state of Delaware had subscribed $25,000 in the stock of the Chesapeake and Delaware Canal in 1823. Gray, "Early History of the Chesapeake and Delaware Canal," p. 378.

25. Read to Blaney, February 2, 1829, Read Manuscripts.

26. Read Manusacripts. This information was taken from an undated statement written by William Read.

27. Ibid.

28. Ibid.

29. Blaney to Read, January 30, 1829, Read Manuscripts.

30. The Pennsylvania, Delaware, and Maryland Steam Navigation Company was chartered in Delaware on February 5, 1829. Laws of the State of Delaware, VII, 283-294.

31. Blaney to Read, January 30, 1829, Read Manuscripts.

32. Thomas Janvier to Read, February 1, 1829, in ibid.

33. George Read, Jr., to William T. Read, February 3, 1829, in ibid.

34. Laws of the State of Delaware, VI, 323-325.

35. Ibid., pp. 313-314.

36. Ibid., pp. 317-318.

37. Acts of Incorporation, pp. 9-10.

38. Minute Book, March 30, 1829.

39. Ibid., May 1, 1829.

40. Ibid.

41. Delaware Gazette, May 8, 1829.

42. Minute Book, May 5, 1829 and May 21, 1829.

43. Delaware Gazette, May 8, 1829.

44. Minute Book, September 7, 1829.

45. Legislative Petitions, Transportation, DSA.

46. Undated petition to the Senate and House of Delegates of Maryland. Minute Book.

47. Acts of Incorporation, p. 10.

48. Ibid., pp. 16-18.

49. Minute Book, February 8, 1830; Delaware Gazette and American Watchman, February 9, 1830.

50. Diary of William D. Lewis, November 18, 1830, Historical Society of Delaware.

51. Delaware Gazette and American Watchman, December 15, 1829.

52. Ibid., January 29, 1830.

53. Minute Book, March 4, 1830.

54. Ibid., March 31, 1830.

55. Acts of Incorporation, pp. 27-28.

## NOTES TO CHAPTER V

## CONSTRUCTION AND COMPLETION

1. Diary of William D. Lewis, April 9, 1831, Historical Society of Delaware. Hereafter cited as Lewis Diary. The other directors were Thomas Janvier, James Rogers, Thomas Rogers, James R. Black, James Booth, Thomas Stockton, James Smith, John Moody, and George Read.

2. Forest G. Hill, Roads, Rails & Waterways: The Army Engineers and Early Transportation (Norman, Okla., 1957), p. 4.

3. John Allen Krout and Dixon Ryan Fox, The Completion of Independence, 1790-1830 (New York, 1944), p. 330.

4. Ralph D. Gray, "The Early History of the Chesapeake and Delaware Canal," Delaware History, VIII, No. 4 (1959), 383-385.

5. Ibid., IX, No. 1 (1960), 72.

6. The Delaware Journal, February 3, 1832.

7. Legislative Petition, January 17, 1831, Transportation, DSA.

8. Ibid.

9. Ibid.

10. Acts of Incorporation of the New Castle and Frenchtown Turnpike and Railroad Company (Philadelphia, 1837), pp. 30-32.

11. Ibid., pp. 32-33.

12. Ibid., p. 33.

13. Lewis Diary, December 31, 1831.

14. Booth to Lewis, June 23, 1832, New Castle and Frenchtown Railroad Papers, Folder IV, Historical Society of Delaware. Hereafter cited as Railroad Papers.

15. Lewis Diary, November 19 and 23, 1830.

16. Ibid., November 6, 1830.

17. See Appendix.

18. Lewis Diary, December 3, 1830.

19. Frank Edward Ross, "William David Lewis," Dictionary of American Biography, ed. Dumas Malone (New York, 1933), XI, 226-227.

20. James Couper to Lewis, October 6, 1830, Railroad Papers, Folder I.

21. Lewis Diary, December 3, 1830.

22. Ibid., February 17, 1831.

23. "Resolution in Regard to the Engineer in Chief," Railroad Papers, Folder I.

24. Lewis Diary, April 30, 1831. Read later explained to Lewis that he had sold his railroad stock because of personal financial difficulties. Ibid., May 16, 1831.

25. Each share of stock entitled the holder to one vote, but no stockholder could cast more than twenty-five votes. Laws of the State of Delaware, VI, 321-322.

26. Lewis Diary, May 3, 1831.

27. See below, p. 118.

28. Disbursements up to April 30, 1831, Railroad Papers, Folder II.

29. Estimated cost of construction, May 2, 1831, ibid., Folder I.

30. "Resolution in Regard to the Engineer in Chief," ibid.

31. Gray, "The Early History," Delaware History, IX, 70.

32. Delaware Free Press, March 26, 1831.

33. Lewis Diary, April 15, May 3, 1831; Randel to Lewis, May 5, 1831, Railroad Papers, Folder I.

34. Lewis Diary, May 6, 1831.

35. Ibid., October 2, 1831.

36. Stockton to Nevins, October 6, 1831, Railroad Papers, Folder II.

37. Delaware Free Press, March 26, 1831.

38. Randel to Lewis, May 5, 1831, Railroad Papers, Folder I.

39. Lewis Diary, July 27, 1831.

40. Lewis to Bonney, October 17, 1831; C. D. Blaney to Lewis, November 14, 1831, Railroad Papers, Folder II.

41. Lewis Diary, April 18, 1831.

42. Ibid., May 11, 1831; American Railroad Journal, January 18, 1834.

43. Lewis Diary, May 9, 1831; Lewis to Stockton, May 23, 1831, Lewis-Neilson Papers, Historical Society of Pennsylvania. Hereafter cited as Lewis-Neilson Papers.

44. The Delaware Journal, February 3, 1832.

45. The yellow pine was particularly valuable because its abundance of rosin prevented the penetration of water for many years. Charles Gwinn, a Baltimorean, was the agent who ordered the shipments of scantlings whenever they were needed. The trips from Savannah to New Castle were not easy ones, for storms endangered the ships and diseases sometimes broke out among the crew. Lewis to Gwinn, July 20, 1831, Lewis-Neilson Papers; Nevins to Lewis, October 18, 1831, Railroad Papers, Folder II.

46. Lewis Diary, October 21, 1831.

47. Ibid., May 16, 1831.

48. Lewis to Stockton, May 12, 1831, Lewis-Neilson Papers.

49. Blaney to Lewis, May 24, 1831, Railroad Papers, Folder I.

50. Lewis Diary, May 23, 1831 and May 28, 1831.

51. Ibid., June 13, 1831 and June 17, 1831.

52. Ibid., June 1, 1831; Stockton to Lewis, May 31, 1831, Railroad Papers, Folder I.

53. Lewis Diary, June 4, 1831.

54. Ibid.

55. Nevins to Lewis, June 10, 1831, Railroad Papers, Folder I.

56. Lewis Diary, November 25, 1831.

57. Ibid., June 21, 1831.

58. Austin to Lewis, June 22 and 23, 1831, Railroad Papers, Folder I.

59. Lewis Diary, June 29, 1831.

60. Nevins to Lewis, July 2, 1831, Railroad Papers, Folder I. Whisky was used at various times to keep the men on the job. Booth to Lewis, July 1, 1831, ibid. Among the supplies for March 28, 1832, was "1 gallon of whisky for the men."

61. Nevins to Lewis, July 3, 1831, ibid.

62. Lewis Diary, July 5, 1831; Delaware Free Press, July 9, 1831; Niles' Weekly Register, July 16, 1831.

63. Nevins to Lewis, July 5, 1831, Railroad Papers, Folder I.

64. Austin to Lewis, June 28, 1831, ibid.

65. Lewis Diary, July 25 and 26, 1831.

66. Stockton to Lewis, August 23, 1831, Railroad Papers, Folder I.

67. Lewis Diary, September 24, 1831.

68. "Documents in Relation to the Comparative Merits of Canals and Railroads," Executive Documents (Washington, 1832), III, 33.

69. C. C. Cambreleng to Lewis, October 2, 1831, Railroad Papers, Folder II.

70. Nevins to Lewis, November 19, 1831, ibid.

71. Stockton to Lewis, November 23, 1831, ibid.

72. Lewis Diary, April 8 and October 31, 1831; United States Gazette, February 28, 1832.

73. Stockton to Lewis, December 18, 1831, Railroad Papers, Folder II.

74. Randel to Lewis, December 15, 1831, ibid.

75. Ibid.

76. Lewis Diary, December 19, 1831.

77. Blaney to Lewis, December 13, 1831, Railroad Papers, Folder II. Apparently much other canal and railroad construction ceased for the winter, and laborers were more abundant.

78. Erwin to Lewis, January 11, 18 and 24, 1832, ibid., Folder III.

79. Lewis Diary, February 20, 1832.

80. See below, p. 121.

81. Nevins to Lewis, February 28, 1832, Railroad Papers, Folder III; Niles' Weekly Register, March 3, 1832.

## NOTES FOR CHAPTER VI

## FROM HORSES TO LOCOMOTIVES

1. Delaware Journal, May 3, June 7, and July 12, 1831.

2. Lewis Diary, February 22 and May 2, 1831. One reason the stock rose in value in May was the election of the Philadelphians to the board of directors.

3. Ibid., August 27, 1831; R. E. Brenmer to Lewis, September 2, 1831, Railroad Papers, Folder II.

4. "Estimate of cost of the New Castle and Frenchtown Railroad," Railroad Papers, Folder II.

5. Lewis Diary, September 3, 1831.

6. Ibid., September 11, 1831; J. R. Ingersoll to Lewis, September 10, 1831, Railroad Papers, Folder II.

7. Lewis Diary, September 12, 1831.

8. Ibid., June 8, 1832.

9. Ibid., December 1, 1831.

10. Couper to Lewis, December 13, 1831, and Blaney to Lewis, December 13, 1831, Railroad Papers, Folder II.

11. Lewis Diary, December 29, 1831 and January 1, 1832.

12. Legislative Petition, Transportation, January 27, 1832, DSA.

13. Acts of Incorporation of the New Castle and Frenchtown Turnpike and Railroad Company, p. 34.

14. Lewis Diary, February 27, 1832.

15. H. D. Gilpin to William Meeteer, March 11, 1830, and Gilpin to W. J. Watson, March 15, 1830. The Chesapeake and Delaware Canal Company Letter Book, February 12, 1822, to August 23, 1832, Historical Society of Delaware. Hereafter cited as Letter Book.

16. Hugh McElderry to Manuel Eyre, October 17, 1830, "Trustees for the payment of the Debts of the Pennsylvania, Delaware, and Maryland Steam Navigation Company in a/c with Hugh McElderry," Pennsylvania, Delaware, and Maryland Steam Navigation Company Papers, 1830-1833, Historical Society of Pennsylvania. Hereafter cited as Steam Navigation Company Papers. The Union Line had attempted to offset its rival by securing an act of incorporation from the Delaware Legislature in 1830. See Laws of the State of Delaware, VIII, 11-14.

17. Gilpin to Watson, January 22, 1831, Letter Book.

18. Lewis Diary, September 8, 1831; Moody to Lewis, January 30, 1832, Railroad Papers, Folder III.

19. A series of papers dealing with the estimate of the Union Line's use of the turnpike can be found in the Railroad Papers, Folder I.

20. Nevins to Lewis, July 6 and 7, 1831, ibid., Folder I.

21. Lewis Diary, October 21, 1831.

22. Lewis to Nevins, October 11, 1831, Railroad Papers, Folder II.

23. Nevins to Lewis, November 4, 1831, ibid.; Lewis Diary, September 9, 1831.

24. "Agreement between the Citizen's Union Line and the New Castle and Frenchtown Railroad," ibid.; Lewis Diary, November 14, 1831.

25. Lewis Diary, December 1, 1831.

26. Hugh McElderry to Manuel Eyre, September 23, 1831, Steam Navigation Company Papers.

27. Moody to Lewis, January 30, 1832, Railroad Papers, Folder III; Minutes of the President and Directors of the Chesapeake & Delaware Canal Company, February 6, 1832, Historical Society of Delaware. Hereafter cited as Canal Company Minute Book.

28. Charles Stewart to Eyre, January 31, 1832, Steam Navigation Company Papers.

29. Canal Company Minute Book, February 6, 1832.

30. Lewis Diary, February 20, 1832.

31. Ibid., February 24, 1832.

32. Canal Company Minute Book, March 5, 1832; R. M. Lewis to Eyre, March 6, 1832, Letter Book.

33. Meeteer to Lewis, March 9, 1832, Railroad Papers, Folder III. Those voting against the canal company's offer were "Meeteer, Watson, the two McDonalds & Henderson," and those voting for it were "Eyre, Janvier, Raybold, and Ellicott." Lewis Diary, March 9, 1832.

34. Lewis Diary, November 15, 1831 and February 20, 1832.

35. Ibid., March 33, 1832; A. F. Henderson to Lewis, February 20, 1832, Railroad Papers, Folder III.

36. George Janvier to Lewis, April 14, 1832, Railroad Papers, Folder IV.

37. James Bird to Lewis, April 27, 1832, ibid.

38. Bird to Lewis, May 4, 1832, ibid.

39. Lewis Diary, February 27 and May 15, 1832.

40. "Duties of the Agents," Railroad Papers, Folder V.

41. Meeteer to Lewis, March 2, 1832; Nevins to Lewis, March 6, 1832; Bird to Lewis, April 24 and 27, 1832, ibid., Folders III and IV.

42. Lewis Diary, April 13, 1832.

43. Ibid., March 25, 1832; Bird to Lewis, April 12, 1832, Railroad Papers, Folder IV.

44. Acts of Incorporation, p. 38.

45. Bird to Lewis, May 3 and June 5, 1832, Railroad Papers, Folder IV.

46. Bird to Lewis, June 17, 1832, ibid.; Lewis Diary, May 8 and June 17, 1832.

47. Nevins to Lewis, August 20, 1832, Railroad Papers, Folder V.

48. Nevins to Lewis, March 24, 1832, and Bird to Lewis, June 15, 1832, ibid., Folders III and IV; Lewis Diary, March 22, 1832 and April 7, 1832.

49. Randel's report was dated July 4, 1832. Railroad Papers, Folder IV.

50. William Kemble to Lewis, June 16, 1831, ibid., Folder I; Lewis to Kemble, June 20, 1831, Lewis-Neilson Papers.

51. William J. Brown to Lewis, September 20, 1831, Lewis-Neilson Papers.

52. Brown to Lewis, September 30, 1831, ibid.; Brown to Lewis, October 31, 1831; Moody to Lewis, April 2, 1832, Railroad Papers, Folders II and IV.

53. Booth to Lewis, August 24, 1832, Railroad Papers, Folder V. It is possible that "Baldwin" could have been from the Baldwin Locomotive Works in Philadelphia, a firm that was founded in 1832.

54. Lewis to George Stevenson & Company, September 20, 1831, Lewis-Neilson Papers.

55. Lewis Diary, March 25, 1832.

56. American Rail-Road Journal, July 14, 1832.

57. Bird to Lewis, July 13, 1832, Railroad Papers, Folder V.

58. Bird to Lewis, September 11, 1832, ibid.

59. Niles' Weekly Register, October 20, 1832; American Rail-Road Journal, October 20, 1832.

60. Lewis Diary, September 17, 1832; Bird to Lewis, November 5, 1832, Railroad Papers, Folder VI.

61. Lewis Diary, September 10 and October 18, 1832; Bird to Lewis, October 21, 1832, Railroad Papers, Folder IV.

62. Bird to Lewis, December 4, 1832, Railroad Papers, Folder VI.

63. Lewis Diary, February 15, 1833.

NOTES FOR CHAPTER VII

COMPETITION AND DEFEAT

1. "Disbursements to December 15, 1832," Railroad Papers, Folder VI.

2. Ibid., Folder III.

3. Lewis Diary, March 20, 1832.

4. "Loan Number 4," Railroad Papers, Folder VI.

5. "Loan Number 5," ibid.

6. Booth to Lewis, October 24, 1832, ibid., Folder VI.

7. Nevins to Lewis, August 2, 1832, ibid., Folder V; Journal of the House of Representatives of the State of Delaware, 1833 (Dover, 1833), p. 196.

8. Janvier to Lewis, September 13, 1832, Railroad Papers, Folder V.

9. Lewis Diary, December 14, 1832.

10. There is a rough draft of a petition submitted to the Delaware Legislature in Railroad Papers, Folder VII.

11. Potter, "The Philadelphia, Wilmington, and Baltimore Railroad," p. 20.

12. Dayton and Adams, Steamboating Days, pp. 309-310.

13. Legislative Petitions, Transportation, DSA.

14. Lewis Diary, January 26, 1833.

15. Acts of Incorporation of the New Castle and Frenchtown Turnpike & Rail Road Company, pp. 37-40.

16. R. Montegomery Livingeston to Lewis, September 12, 1831, Railroad Papers, Folder II.

17. Booth to Lewis, February 6, 1832, ibid., Folder III; Legislative Petitions, Transportation, DSA.

18. The five railroad directors were Booth, James Rogers, Johns, Lewis, and Stockton. A rough draft of the proposal is in Railroad Papers, Folder VII.

19. Meeteer to New Castle and Frenchtown Railroad Company, January 19, 1833, ibid., Folder VII.

20. James Rogers to Lewis, March 27, 1833, ibid.

21. Lewis Diary, April 17, 1833.

22. Ibid.

23. Canal Company Minute Book, April 1, 1833.

24. Lewis Diary, March 3, 1833.

25. Young to Lewis, March 11, 1833, Railroad Papers, Folder VII.

26. Lewis Diary, March 13, 1833.

27. Niles' Weekly Register, April 20, 1833.

28. Delaware Gazette and American Watchman, September 10, 1833.

29. Ibid., May 7, 1833.

30. Lewis Diary, May 2, 1833.

31. Stockton to Lewis, May 4, 1833, Railroad Papers, Folder VII.

32. Delaware Gazette and American Watchman, May 14, 1833.

33. Lewis Diary, May 27, 1833; McElderry to Lewis, May 5, 1833, Railroad Papers, Folder VII.

34. Lewis Diary, May 27, 1833.

35. Delaware Gazette and American Watchman, June 7, 1833.

36. Lewis Diary, September 10, 1833.

37. Booth to Lewis, May 31, 1833, Railroad Papers, Folder VII.

38. Stockton to Lewis, May 19, 1833, ibid.

39. Booth to Lewis, May 31, 1833, ibid.; Delaware Gazette and American Watchman, May 21, 1833.

40. Lewis Diary, September 17, 1833.

41. Richard Hofstadter, The American Political Tradition and the Men who Made It (New York, 1948), pp. 63-65.

42. Booth to Lewis, May 31, 1833, Railroad Papers, Folder VII.

43. Delaware Gazette and American Watchman, May 21, 1833.

44. Ibid., July 2, 1833.

45. Booth to Lewis, November 30, 1833, Railroad Papers, Folder VII.

46. Ibid.

47. Canal Company Minute Book, January 6, 1834.

48. Ibid., February 18, 1834.

49. Railroad Papers, Folder VIII.

50. Canal Company Minute Book, March 19, 1834.

51. Delaware Gazette and American Watchman, March 18, 1834; American Rail-Road Journal, March 15, 1834.

52. Delaware Gazette and American Watchman, April 11, 1834.

53. Acts of Incorporation of the New Castle and Frenchtown Turnpike & Railroad Company, p. 39.

54. A Stockholder, Considerations Relating to the Exclusive Grant of Rail-Road Privileges Within Certain Limits, to the New Castle and Frenchtown Turnpike and Rail-Road Company, By the State of Delaware (New Castle, 1834), passim.

55. Delaware Gazette and American Watchman, August 15, 1834.

56. Canal Company Minute Book, September 11, 1834.

57. Delaware Gazette and American Watchman, October 31, 1834 and December 19, 1834.

58. Ibid., November 5, 1834.

59. Ibid., March 3, 1835.

60. Potter, "The Philadelphia, Wilmington, and Baltimore Railroad," pp. vii-viii.

61. Lewis to Booth, February 12, 1833, Railroad Papers, Folder VII.

62. Potter, "The Philadelphia, Wilmington, and Baltimore Railroad," pp. 83-84.

63. The Pennsylvania Railroad Company: Corporate, Financial, and Construction History of Lines Owned, Operated, and Controlled to December 31, 1945 (compiled by Coverdale and Colpitts, Consulting Engineers, New York, n.d.), II, 318.

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