## Railroad Building in Indiana, 1850-1855

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With increasing frequency these days back-page stories in Indiana newspapers indicate that rail service is to be discontinued on sections of the Pennsylvania, the New York Central, and the Monon—or that a few of the remaining giant corporations are negotiating to bring about the ultimate in railroad consolidation.1 Most Hoosiers who grew up before World War II can recall when railroads were somehow different, if not more important, than they are now. Some may already be looking back nostalgically to days when the steam locomotive and sleek diesel were dramatic symbols of commercial progress, or when a train ride was the standard means for making a trip to Chicago, New York, or Denver. A moment's reflection will prompt the realization that these are but signs of a new chapter in the railroad history of the state, and that, if it is not the concluding chapter, certainly it is one falling near the close of a long and fascinating story.

The phases of Indiana's 130 years of railroad history can be capsuled into a few simple statements. From the late 1820's until around 1850 there was much talking but not much building. From 1850 to the early 1870's the basic network was established, very much along the lines projected by the earliest promoters. During the latter decades of the past century, consolidation of major lines took place, and many branch and feeder lines were built to supplement the basic network. Since World War I consolidation has continued while the network has retrenched due to competition from other forms of transportation. With minor modifications, this summary might be applied to the history of railroads in most of the states between the Appalachians and the Mississippi River. But such generalizations obviously

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<sup>&</sup>lt;sup>1</sup> Indianapolis Star, October 9, 1953, September 28, December 16, 1958, April 16, 22, 1959; Indianapolis Times, June 15, 1958, January 11, 13, 1962; Indianapolis News, November 27, 1958, April 2, 1959, September 29, October 2, 1961.

ignore the unique and multitudinous steps which Indiana and other states have pursued in fitting themselves into the nation's railroad pattern.

The present study is concerned primarily with railroad developments in the state of Indiana during the period 1850-1855 when, after a somewhat lengthy prelude, the rail network of the state finally began to take shape. In a sense this presentation is a "progress report" on a more ambitious research project designed to encompass the story of Indiana's railroads from their origins to their current operations. Because of the abbreviated scope of this report, developments preceding and following the first half decade of the 1850's have been dealt with in a cursory manner only; and although a judicious effort has been made to base conclusions on defensible data, this study must naturally suffer from a lack of perspective because of incompleted research. It is hoped, nevertheless, that what is presented here will serve as a sample of the kind of study that railroad history in the state and nation gives rise to and, in fact, demands.

The decade of the 1850's began with little actual rail-road construction accomplished in Indiana. The eighty-six-mile connection between Madison and Indianapolis—the state's pioneer railroad—had been in operation between its terminal towns since 1847, but even this pre-1850 success had not come easily.<sup>2</sup> The dream of a railroad between these points went back to the agitation of the early 1830's when the Indiana General Assembly granted charters to mushrooming "rail road" companies all over the state—even before anybody was sure just what a "rail road" was.<sup>3</sup> The Madison and Indianapolis Railroad has deservedly received much at-

<sup>&</sup>lt;sup>2</sup> The best single study on the Madison and Indianapolis Railroad is that of Wylie J. Daniels, *The Village at the End of the Road* (Indianapolis, 1938). Daniels states that three other "feeder" railroads had been placed in operation before 1851 through the auspices of the Madison and Indianapolis company. These were the sixteen-mile Shelbyville Lateral from Edinburg to Shelbyville (1849), the twenty-mile Shelbyville and Rushville (1850), and the twenty-six-mile Knightstown and Shelbyville (1850). *Ibid.*, 51-53.

<sup>&</sup>lt;sup>3</sup> Laws of Indiana (1831-1832), 181-189. Charters of the railroad companies up to the time the new (1851) Indiana constitution went into effect were acts passed by the Indiana General Assembly. They are, therefore, contained in the formal compilation of Indiana laws. Hereafter, this source will be referred to as Laws, General Laws, or Special Laws, depending on the portion of the legislative record in which the particular charter is located.

tention from Indiana's historians for its initial achievements; but the fact that it required fifteen years for Indiana to build its first operable railroad is certainly indicative of the times.

There may be, on the other hand, a tendency to dismiss too lightly the period of the 1830's and 1840's as a background for later construction. A study of the projected routes outlined in the hundred or more separate railroad charters issued from 1832 to 1850 reveals that these fragmentary lines, prompted largely by local interests, did make some sense when plotted on a composite map of the state. Of the more than four thousand miles of railroad authorized in these early charters, most lines were designed to connect geographic points which, in the perspective of 125 years ago, should have been connected. In fact, some of the routes were of such intrinsic importance that companies to construct railroads over them were authorized again and again after earlier charters became obsolete. The route from the Falls of the Ohio River to Lake Michigan, over which the New Albany and Salem Railroad company eventually completed its road, was one which figured in many separate pre-1850 charters.6 Another route was that of the Buffalo and Mississippi (later

<sup>&</sup>lt;sup>4</sup> The Madison and Indianapolis Railroad's achievements are duly mentioned in most general histories of the state of Indiana and in several articles dealing with early transportation developments in the state. For an example of the latter see George S. Cottman, "Internal Improvements in Indiana—Railroads," Indiana Magazine of History, III (December, 1907), 149-181; Vida Newson, "Phases of Southeastern Indiana History," ibid., XX (March, 1924), 37-58; Ared M. Murphy, "The Big Four Railroad in Indiana," ibid., XXI (June and September, 1925), 109-273.

<sup>&</sup>lt;sup>5</sup> The mileage total is the writer's own estimate based on study of the routes authorized in the charters. Although many of the points to be connected by the proposed roads were at the time only villages, it would have been impossible to predict with certainty in the 1830's and 1840's which of them might eventually become key urban centers.

<sup>&</sup>lt;sup>6</sup> The original charter for what was to become the New Albany and Salem Railroad was probably that approved February 3, 1832; it authorized a "rail-road" from New Albany to Indianapolis via Greenville, Salem, Brownstown, Rockford, Columbus, and Franklin. Laws (1831-1832), 214-223. In the comprehensive Internal Improvements Bill of the mid-thirties a "Rail Road" or "McAdamized Turnpike" was authorized between Jeffersonville and Crawfordsville, via New Albany, Salem, Bedford, Bloomington, and Greencastle. General Laws (1835-1836), 8-9. In 1845 a charter was granted residents of Montgomery County to build a railroad from Crawfordsville to Lafayette; it was re-granted the following year, "revived" in 1848, and amended in 1851 to include an extension south to Greencastle. Local Laws (1844-1845), 164-167; ibid. (1845-1846), 205-210; ibid. (1847-1848), 554-555; ibid. (1850-1851), 515. Another significant charter amendment relating to this route was that granted to the New Albany and Salem company in 1848 which gave its officers the "right and power to extend their work or road to any other point or points, than those indicated

the Northern Indiana) Railroad company; it meandered over the northern tier of counties toward Chicago, sending its projected tributaries in all directions to catch infant villages along the way. Still other routes consistently regarded as important were those from Evansville to Terre Haute, from Richmond to Terre Haute, from Lafayette to Indianapolis, from Peru to Indianapolis, from Lawrenceburg to Indianapolis, and from the Ohio Falls area to Indianapolis. Once railroad building began in earnest in the early 1850's, these routes were among the first started.

The general assembly was usually quite lenient in the time it allotted companies to complete their roads, but legislative authority alone was not enough to get them built. In many instances in which a company was little more than a flare-up of "rail fever," the project normally died soon. Apparently this was the fate of such unbuilt roads as the Levenworth [sic] and Bloomington (1834), the Charlestown and Ohio (1835), the Perrysville and Danville (1836), and perhaps 40 per cent of all those chartered in the 1830's and 1840's. It is impossible to determine how many other com-

by the location heretofore made by authority of the state. . . ." Ibid. (1847-1848), 456-457. As noted by Professor Logan Esarey, there is some question as to the exact charter authority under which the New Albany and Salem company constructed much of its road. Logan Esarey, A History of Indiana (2 vols., Fort Wayne, Ind., 1924), II, 725-726.

 $<sup>^7</sup>$  For charters, amendments, and legislative resolutions relating to this route see  $Local\ Laws$  (1834-1835), 16-24; ibid. (1837-1838), 158-159; ibid. (1844-1845), 278; ibid. (1845-1846), 85-87, 106; ibid. (1847-1848), 535-543; ibid. (1850-1851), 241-245.

<sup>\*</sup>For Evansville-Terre Haute route see Local Laws (1835-1836), 149-157; ibid. (1848-1849), 273-285; ibid. (1849-1850), 350-354; ibid. (1850-1851), 96-108. For Richmond-Terre Haute route: ibid. (1846-1847), 77-84; ibid. (1847-1848), 530-531; ibid. (1849-1850), 136-137. For Lafayette-Indianapolis: Laws (1831-1832), 181-189; ibid. (1833-1834), 244-245; ibid. (1847-1848), 517. For Peru-Indianapolis: ibid. (1845-1846), 210-217; ibid. (1848-1849), 328; ibid. (1850-1851), 459. For Lawrenceburg-Indianapolis: Laws (1831-1832), 173-181; General Laws (1840-1841), 213; Local Laws (1841-1842), 130, 134-135; ibid. (1842-1843), 133-134; ibid. (1850-1851), 17-18. For Ohio Falls-Indianapolis: Laws (1831-1832), 227-236; Local Laws (1836-1837), 46-47; ibid. (1845-1846), 153-161; ibid. (1847-1848), 479-480; ibid. (1848-1849), 364-365.

<sup>&</sup>lt;sup>9</sup> For example, the Andersontown, Greenfield and Shelbyville company was given three years to begin work and ten more to have it completed. The Ohio and Mississippi company was allowed twenty-five years to complete its road. *Local Laws* (1845-1846), 176; *ibid.* (1847-1848), 625.

<sup>&</sup>lt;sup>10</sup> Laws (1833-1834), 218-226; Local Laws (1834-1835), 47-54; *ibid.* (1835-1836), 207-214. The 40 per cent is writer's estimate based on survey of railroad developments during this period.

panies were stillborn before they even reached the charter stage, but it is likely that at one time or another through the thirties and forties almost every settlement in the state at least dreamed of an all-important rail connection.

Stripped of certain emotional overtones which accompanied the formation of the early railroad projects, the problem the planners and promoters tried to solve with their schemes was an economic one. Paraphrased in a single word, it was markets. They wanted means to dispose of their surplus commodities and facilities to obtain products their own economy was not advanced enough to provide. In simplest terms, this meant they must somehow attach their locality to a point or points where the advantageous exchange could take place. When the railroad fever first hit the Hoosier State, waterways were the accepted mode of transporting bulky materials over long distances. The initial purpose of the railroad was to supplement the waterway system. 11 Since the state's population was weighted toward the Ohio River, 12 towns along its banks had a strong priority as terminals for the earliest chartered roads. Of the hundred or so authorized before 1850, twenty-five were to have points on the Ohio as one of their terminals. Almost this many more were to touch the Wabash and Erie Canal, while others were to tie in the northern portion of the state with the natural waterway supplied by the Great Lakes. A few of the more ambitious routes, most notably the one to be followed by the New Albany and Salem Railroad, attempted to link all three of these east-west waterways. 13

If it had not been for the establishment of the state's capital near the geographic center of the state, this plan of using railroads chiefly as a means of linking waterways probably would have prevailed somewhat longer. The location of the capital town itself came to be an important factor in railroad planning. To plan a railroad of any significant

<sup>&</sup>lt;sup>11</sup> John D. Barnhart and Donald F. Carmony, *Indiana: From Frontier to Industrial Commonwealth* (2 vols., New York, 1954), II, 23.24

<sup>&</sup>lt;sup>12</sup>U.S., Census Office, Statistical View of the United States, a Compendium of the Seventh Census, 224, 230.

 $<sup>^{13}\,\</sup>mathrm{Based}$  on information contained in railroad charters of this period.

length and not somehow have it reach the promising capital became almost infeasible. Though by 1850 Indianapolis was little more than the political center of the state—noticeably behind Madison, New Albany, and other communities in industrial advancement—this town was ideally situated for the kind of transportation revolution now beginning. It served as a magnet to draw to a central point what otherwise might have been dangling lines. The foresight, promotion, and sheer good luck which combined to create Indianapolis into the rail hub of the state make up one of the intriguing stories in Indiana's history.

By the close of the 1840's Indiana was recognized as a valuable hinterland for any established marketing center which could arrange to tap it. The larger Ohio River towns, and some of the not-so-large ones, early visualized themselves in this highly profitable role. Promoters in Evansville, New Albany, Jeffersonville, and Lawrenceburg consciously or unconsciously worked toward this end. Madison, having the first success in getting a railroad into the interior, actually came closest of the river towns to being a regional distribution center.15 Ultimately, however, it was larger, out-of-state cities which exerted the real gravitational pull: Cincinnati and Louisville to the southeast; Cleveland and Toledo to the northeast: and the phenomenal Chicago to the northwest. There may have been an awareness on the part of Indiana's early railroad promoters that anything they might accomplish would eventually fall as gain to commercial interests in distant cities, but there is little to indicate that by the early 1850's they were seriously disturbed about it.

Although there was no sharp break between rail developments of the late 1840's and those of the beginning 1850's, the new decade did promise certain advantages over the previous period. The state had gotten over most of the financial shock resulting from the internal improvements fiaso of the late thirties, and relatively prosperous times

<sup>&</sup>lt;sup>14</sup> U.S., Census Office, Statistical View of the United States, a Compendium of the Seventh Census, 229, 235.

<sup>15</sup> Urban rivalry in the state of Indiana is a subject that has not yet been adequately explored, but as early as 1907 one writer pointed out the competition among the Ohio River communities for supremacy. See Cottman, *Indiana Magazine of History*, III (December, 1907), 155.

were back again. Along with a large increase in the state's population there had undoubtedly been a commensurate increase in property values and investment capital.¹6 Also, managerial and technical talent had no doubt evolved as a result of the trial-and-error experiences of the recent past. Still another important stimulant was the example of the Madison and Indianapolis Railroad. Its success proved that railroads could be built and operated in Indiana; here was the encouragement needed to goad planners of other roads into action.

At the beginning of the 1850's many earlier charters were still legally in effect, but no more than ten of the companies authorized to construct railroads showed serious inclinations to start building.<sup>17</sup> These companies were surveying their routes and attempting to accumulate sufficient funds to begin construction. At least two of the railroads were at the track-laying state; before the year 1850 closed, the Indianapolis and Bellefontaine Railroad company laid down twenty-eight miles of track between Indianapolis and Pendleton, and the New Albany and Salem completed its track thirty-five miles to Salem.<sup>18</sup>

The year 1851 brought further proof that the building era of Indiana's railroads had arrived. The vigorous Terre Haute and Indianapolis Railroad company almost completed trackage over its seventy-three-mile route within this single year; the Northern Indiana Railroad company opened a twenty-five-mile stretch from the Michigan state line, near

<sup>&</sup>lt;sup>16</sup> Indiana's population in 1840 was 685,866; in 1850, 988,416—an increase of over 40 per cent. See U.S., Census Office, Seventh Census of the United States: 1850, p. 781.

<sup>&</sup>lt;sup>17</sup> Among the many charters legally in effect were those providing railroads between Pendleton and Indianapolis, Rockville and Montezuma, Brownstown and Scipio, Indianapolis and Cincinnati (the "Junction" road), Peru and Goshen, and Mount Vernon and New Harmony. See *Local Laws* (1845-1846), 64-66, 193-199; *ibid.* (1847-1848), 46-52, 496, 124-129, 593-599.

<sup>&</sup>lt;sup>18</sup> Company report, Bellefontaine and Indianapolis Railroad, January, 1851, pp. 19-20 (Indiana Division, Indiana State Library, Indianapolis); New Albany *Ledger*, January 18, 1851. According to Cottman, by the close of 1850 the following track was ready for use: Bellefontaine—28 miles; Jeffersonville—16; Knightstown—27; Rushville—20; New Albany—35; Shelbyville Branch of Madison—16; the completed Madison and Indianapolis—86; total—238 miles. Since Cottman does not reveal the exact sources of this information, it should be accepted with caution. Cottman, *Indiana Magazine of History*, III (December, 1907), 158.

White Pigeon, to South Bend; the Indianapolis and Belle-fontaine company moved its line sixteen miles farther east to the village of Chesterfield; and the New Albany and Salem finished an additional twenty-mile section beyond the original terminus of Salem to the village of Orleans.<sup>19</sup> Two other companies began laying track; the Peru and Indianapolis had the twenty-one-mile section from Indianapolis to Nobles-ville ready for use in March and the Jeffersonville road, heading northward to Columbus, completed twenty-seven miles of track to Vienna, in Scott County, before the year's end.<sup>20</sup>

The following three years (1852, 1853, 1854) showed the same kind of tangible results. Early in 1852 the Northern Indiana company joined with the Michigan Southern Railroad company to open a route curving through the northwestern corner of the state into Chicago. During 1852 the Lafayette and Indianapolis company, blessed with ideal terrain, built its entire seventy-three-mile line, and by the close of the year the Jeffersonville company had finished its road to Columbus and added an eleven-mile section to Edinburg. Meanwhile, the twenty-five-mile Martinsville and Franklin Railroad was opened for business in November.<sup>21</sup>

In January 1853 the Indianapolis and Bellefontaine company celebrated the opening of its track to Union (now Union City) on the Indiana-Ohio state line and joined with finished roads in the neighboring state to give Indiana its first rail link to major cities on the eastern seaboard. The Indiana Central Railroad company opened its line from Indianapolis to Richmond in the fall of 1853; and a few weeks later, after more than two decades of false starts, the Lawrenceburgh and Upper Mississippi Railroad company finally got its road completed between Indianapolis and

<sup>&</sup>lt;sup>19</sup> Indiana Journal, January 26, 1852, October 6, November 12, 1851. The Indiana Journal, published at Indianapolis from 1824 until 1904, was perhaps the leading newspaper in Indiana during its period. Established as a weekly, it also appeared as a bi-weekly, tri-weekly, and daily. At times such editions appeared concurrently. The title included such variations as Indiana Journal, Indiana State Journal, Daily Journal, and Weekly State Journal. In this article citations are to the daily edition unless otherwise indicated and variations in title have been ignored.

<sup>20</sup> Ibid., October 2, September 26, 1851.

<sup>&</sup>lt;sup>21</sup> Ibid., February 19, December 15, December 6, November 19, 1852.

Lawrenceburg. Largely as a result of the growing rivalry of the older Madison and Indianapolis company and the newer Jeffersonville company, another feeder line was completed in December in southern Indiana; this was the twenty-three-mile Columbus and Shelbyville.<sup>22</sup>

The New Albany and Salem Railroad, longest of all the pioneer roads, moved forward methodically and completed its 288-mile route across the state from New Albany to Michigan City by the middle of 1854, thus realizing the dreams of early promoters to tie by rail the Ohio River and Lake Michigan. During 1854 two other companies managed to open service between key terminal points; the Peru and Indianapolis did this in the spring, and the Evansville and Illinois (from Evansville to Terre Haute) in the following November.<sup>23</sup>

Also during the same three-year period other important lines were either in the advanced planning or early construction stage. These were: the Ohio and Mississippi, from Lawrenceburg to Vincennes (actually a segment of the Baltimore to St. Louis trunk system); the Cincinnati, Logansport and Chicago, which was to join the rail complex in western Ohio to roads converging on Chicago; and the Lake Erie, Wabash and St. Louis (known later as the "Wabash"), destined to run from Fort Wayne along the Wabash Valley into Illinois.<sup>24</sup> These roads, all designed to span the state from east to west, would eventually comprise a significant part of Indiana's rail network, but their completion did not occur until some months after the period directly considered in this report.

<sup>&</sup>lt;sup>22</sup> Ibid., January 22, September 20, November 23, 1853, January 2, 1854. The corporate name of the Lawrenceburgh and Upper Mississippi Railroad company was changed to Indianapolis and Cincinnati Railroad company in October, 1853. *Ibid.*, November 1, 1853.

<sup>&</sup>lt;sup>23</sup> Ibid., June 28, March 28, November 30, 1854. Francis F. Hargrave in his study of the New Albany and Salem Railroad (which later became the Monon) discusses in some detail the agreement by which the New Albany and Salem and the Michigan Central railroads arranged a rail line into Chicago. He indicates that this line was open early in 1852, more than a year before the completion of the New Albany and Salem. See Francis F. Hargrave, A Pioneer Indiana Railroad, the Origin and Development of the Monon (Indianapolis, 1932), 109, 128.

<sup>&</sup>lt;sup>24</sup> Indiana Journal, June 22, March 17, 1854, August 8, 1853. The Cincinnati, Logansport and Chicago was initially chartered and known as the Newcastle and Richmond. Local Laws (1847-1848), 521-525.

By the close of the year 1854 over fourteen hundred miles of railroad had been completed and were in operation in Indiana. The following table summarizes the state's railroad developments as of January, 1855:

TABLE I: COMPLETED RAILROAD MILEAGE IN INDIANA, JANUARY, 1855<sup>25</sup>

Railroad	Miles of	Track in	Service
Cincinnati, Logansport and Chicago*		48	
Columbus and Shelbyville		23	
Evansville and Illinois		107	
Indiana Central		67	
Indianapolis and Bellefontaine		84	
Jeffersonville		77	
Knightstown and Shelbyville		26	
Lafayette and Indianapolis		73	
Lawrenceburgh and Upper Mississippi		90	
Madison and Indianapolis		86	
Martinsville and Franklin		25	
Michigan Central		40	
New Albany and Salem		288	
Northern Indiana		104	
Ohio and Indiana		20	
Ohio and Mississippi*		67	
Peru and Indianapolis		73	
Shelbyville Lateral		16	
Shelbyville and Rushville		20	
Terre Haute and Indianapolis		73	
	Total	1,407	

<sup>\*</sup> Various portions open for service.

A tightened money market caused a temporary slackening of the building pace immediately after 1854, but not before Indiana had taken fifth place among the states of the Union in completed railroad mileage. The table below shows Indiana's relative position as of January, 1855:

<sup>&</sup>lt;sup>25</sup> This table is based on the writer's survey of the railroads completed by January, 1855. Data was obtained from issues of the *Indiana Journal*, 1850-1855. In some cases the mileage of individual roads is an estimate.

TABLE II: COMPLETED RAILROAD MILEAGE IN UNITED STATES, JANUARY, 185526

State	Mileage	State	Mileage
New York	2,685	North Carolina	349
Ohio	2,453	Tennessee	326
Illinois	1,884	Alabama	304
Pennsylvania	1,581	Wisconsin	240
Indiana	1,406	Kentucky	231
Massachusetts	1,220	Mississippi	220
Virginia	986	Louisiana	193
Georgia	975	Rhode Island	96
South Carolina	741	Missouri	37
Connecticut	666	Texas	32
New Hampshire	585	Delaware	22
Maryland	507	Arkansas	
Maine	459	California	
Vermont	454	Florida	_
New Jersey	429	Iowa	
Michigan	427		

No systematic study has yet been made of the eighteen completed roads' financial statements, but fragmentary evidence indicates that the average cost per mile was well over \$15,000.27 This includes the costs of right of way, surveying, preparing the roadbed, rolling stock, and station facilities. Therefore, a conservative estimate of the investment in Indiana's completed roads by 1855 is more than \$21,000,000—roughly twice the estimated cost of the whole projected internal improvements system of the 1830's and 1840's.28 Some companies, such as the Lafayette and Indianapolis, had little difficulty in preparing a roadbed and thereby cut initial engineering costs to a minimum. Other roads, confronted with rough terrain and numerous streams

<sup>&</sup>lt;sup>26</sup> Cited in *ibid.*, January 19, 1855, from the *American Railroad Journal* (n.d.). There is a discrepancy of only one mile between this source's stated mileage for Indiana and that shown in Table I.

<sup>&</sup>lt;sup>27</sup> The following cost per mile examples are based on data supplied by the contemporary companies: Lafayette and Indianapolis, \$9,709; New Albany and Salem, \$14,000; Indianapolis and Bellefontaine, \$17,784; Lawrenceburgh and Upper Mississippi, \$20,777. Company report, Lafayette and Indianapolis Railroad, 1851, pp. 5, 6 (Indiana Division, Indiana State Library, Indianapolis); Indiana Journal, December 7, 1853, January 27, 1854, December 23, 1853. The \$37,000 estimated cost per mile for the 385-mile Ohio and Mississippi was reported to be "nearly double what Western roads usually opened for." Ibid., March 24, 1854.

<sup>28</sup> Barnhart and Carmony, Indiana, I, 336-344.

to bridge, were obliged to spend considerably more. Obtaining sufficient capital to finish a road once construction began was a sore problem with several of the roads. Others arranged adequate financing of the entire line before beginning construction.

No really standard procedure was followed in raising the necessary funds to construct these railroads of the early 1850's, but certain common features did prevail. Usually the charter specified the amount for which the road could be capitalized; depending on its length this might vary from \$150,000 to more than \$1,000,000.29 Since the charters governing the roads constructed in the 1850-1855 period had been issued some years before, when practical information on costs was unavailable, the capitalizations specified in these charters obviously were little more than guesses. On the other hand, increases in capitalization were apparently obtained with ease.30 From evidence thus far studied, it appears that the capital to be raised by selling stock in a new company was intended to cover about 50 per cent of the railroad's total cost. The other half was to be procured from the sale of bonds, frequently with an interest rate as high as 10 per cent.31

A "typical" case of the procedure followed in planning and building one of the early Indiana railroads might be depicted as follows.<sup>32</sup> A number of persons in a region of the state decided that they should have a railroad. A mass meeting was then held in a courthouse where articles of association were drawn up, the more affluent or vocal members of the area were designated officers of the company, and an application for a charter was forwarded to the state government. The charter, running anywhere from a few summary statements to several dozen paragraphs, included information

<sup>&</sup>lt;sup>29</sup> Authorized capitalization for the Martinsville and Franklin Railroad was \$150,000, for the Knightstown and Shelbyville \$200,000, for the Peru and Indianapolis \$500,000, and for the Jeffersonville \$1,000,000. For the Ohio and Mississippi, which extended across three states, a \$5,000,000 capitalization was authorized by the Indiana General Assembly. Local Laws (1845-1846), 168, 185, 211, 153; ibid. (1847-1848),

<sup>&</sup>lt;sup>30</sup> Local Laws (1847-1848), 179; ibid. (1850-1851), 242.

<sup>&</sup>lt;sup>31</sup> Indiana Journal, January 27, 1854, December 23, 1853, March 24, 1854; Company report, Lafayette and Indianapolis Railroad, 1851, pp. 4-6.

<sup>32</sup> Based on writer's study.

about the route, time allowed for building, amount of capitalization, gauge of track, permissible arrangements with other railroad companies, and directors of the newly formed corporation.

Once the charter was approved, solicitation began for the sale of stock. This was one of the crucial phases in the destiny of the new company, for if officials failed to sell enough initial stock to build up momentum for their enterprise, the venture halted right there. A strong appeal was made to residents at all points along the proposed line to purchase or to make pledges for stock. In exchange for stock certificates the buyer might give cash, real estate, equipment of various sorts, or his promise to contribute so many days labor. When enough stock was thus distributed to indicate to officials that the project was likely to succeed, the president and his agents began their campaign to sell bonds to larger investors, usually at an attractive discount, and a man was selected to supervise the engineering. Hereafter the president spent much of his time in eastern commercial capitals peddling bonds and seeking bargains on rails and other needed equipment. This was another crucial point in the affairs of the project. If times were good and the president could make a convincing case for his railroad, money from the sale of bonds poured in and the road was brought to completion with a minimum of delay; if times were bad and money tight, the project slowed up or was indefinitely postponed.

The eighty-four-mile Bellefontaine line (Indianapolis to Union) may serve as an example of railroad financing in the 1850's.<sup>33</sup> The road's 1848 charter authorized a capitalization of \$1,000,000 with a stipulation that this amount might be increased at the pleasure of the company. The line was completed early in 1853 at a reported cost of about \$1,300,000. A little over half of this initial indebtedness was in the form of stock; the remainder was divided between 7 per cent foreign bonds and 10 per cent domestic bonds. During its first six months of operation (July-December, 1853), the Bellefontaine had gross earnings of \$118,000. Almost \$40,000 of this amount went for running expenses, \$27,000 for paying interest on bonds, and \$31,000 for paying 4 per cent dividends

<sup>33</sup> Indiana Journal, January 27, 1854.

on stock; a little less than \$20,000 was designated as "surplus." Since the Bellefontaine's connections were excellent, earnings could be expected to increase dramatically within the next few years. In the case of other roads not so favorably located, the margin of surplus profits left little for maintenance, improvements, and removal of bonded indebtedness.

Income for the completed or partially completed roads consisted of receipts from the transport of passengers, freight, mail, and baggage.34 To encourage further investment in their enterprises, officials of some companies regularly publicized their income figures. When viewed cautiously, such data does give some insight into the roads' financial condition during their first months of operation. Company reports show that when completed between terminal points the Peru and Indianapolis immediately grossed about \$12,000 per month, the Bellefontaine over \$19,000, and the Lawrenceburgh and Upper Mississippi about \$20,000.35 Gross receipts normally increased during the first full year of operation; the Lawrenceburgh company, for example, in March of 1855 reported monthly receipts of \$33,275—25 per cent greater than those reported by the well-established Madison and Indianapolis road a few months earlier. The Northern Indiana company, which had a valuable connection with Chicago, reported gross monthly receipts of \$116,000 at the close of its first year.36 Most companies declared liberal dividends to stockholders based on the so-called "surplus" accrued during the first months' service. Dividends of 4 to 6 per cent were usually granted in the form of bonds or additional stock in the corporation.37

There was fluctuation in passenger fares as competition began to develop among some of the lines but fares averaged about  $2\frac{1}{2}$  to  $3\frac{1}{2}\phi$  per mile.<sup>38</sup> From the beginning of operations, passenger traffic on most roads was as heavy as could be accommodated with the available equipment. While the Peru and Indianapolis ran trains only the twenty-one-mile distance between Indianapolis and Noblesville it transported almost

<sup>34</sup> Ibid., December 23, 1853, January 27, 1854, June 8, 1855.

<sup>85</sup> Ibid., October 5, January 27, April 21, 1854.

<sup>&</sup>lt;sup>36</sup> Ibid., April 7, 1855, November 8, 1854, August 17, 1853.

<sup>&</sup>lt;sup>37</sup> Ibid., July 7, 1853, January 25, February 2, 1854, January 23, 1855.

<sup>38</sup> Ibid., June 9, December 14, 1853.

fifteen hundred passengers a month.<sup>39</sup> When in full operation between their terminal points most of the companies ran an "express" and an "accomodation," i.e., local, train each way daily. By 1854 the Terre Haute and Indianapolis road was carrying as many as five passenger cars on its trains, and the Jeffersonville line was transporting about three hundred passengers in six cars on some of its trips to Indianapolis. In the spring of 1855 the Northern Indiana road was reported to have run a record train of thirty-eight cars and twenty-two thousand passengers.<sup>40</sup> The Madison and Indianapolis Railroad, in spite of the growing competition of other roads, carried twenty-eight thousand more passengers in 1852 than it had during the previous year.<sup>41</sup>

As connections were provided at Indianapolis with other lines, most of the roads ran an early morning train to reach the capital before noon and another one to return the traveler to his point of origin by suppertime.<sup>42</sup> Frequent delays, many of them resulting from minor accidents, sometimes prevented trains from arriving on schedule, but most managed to follow their timetables fairly consistently. The failure to do so became increasingly serious as opportunity for diverse connections developed at Indianapolis and other junction points.

By 1855 the combined rail and water accomodations were becoming so plentiful that a prospective traveler might be faced with the decision of just which route to follow. From Indianapolis to Cincinnati he could take the Bellefontaine northwest to Union and there get a connection to the southeast; he could take the Lawrenceburgh and Upper Mississippi road to the town of Lawrenceburg and transfer to an upriver steamer; or he could choose the Madison and Indianapolis road and make his steamboat connection at the town of Madison.<sup>43</sup> For a trip to Louisville he had the choice of the direct Jeffersonville road or the combined rail-water route using the Madison and Indianapolis road.<sup>44</sup> For a trip

<sup>39</sup> Ibid., October 2, 1851.

<sup>40</sup> Ibid., September 13, January 6, 1854, April 24, 1855.

<sup>41</sup> Ibid., February 1, 1854.

<sup>42</sup> Ibid., May 14, 1852, June 18, 1853, January 23, 1854.

<sup>45</sup> Early in 1854 the Madison and Indianapolis Railroad company purchased two Ohio River steamers, the David White and the Alice Adams, for the "accomodation of its trade and travel." See ibid., February 1, 1854.

<sup>44</sup> The Jeffersonville Railroad used track of the Madison and Indianapolis Railroad between Edinburg and Indianapolis. *Ibid.*, July 18, 1853.

to Cleveland or other eastern cities he would probably prefer the Bellefontaine, but he could also take the Indiana Central, via Richmond, to make connections in Dayton. To Chicago his best choice was a route over the Lafayette and Indianapolis, the New Albany and Salem, and the Michigan Central roads; but he could catch a Peru and Indianapolis train to the Wabash Canal and travel to Lafayette for a rail connection. To the west his rail accommodations were limited to the Terre Haute and Indianapolis, but from Terre Haute the Ohio River could be reached over the Evansville and Illinois Railroad or by Wabash River steamer. Most of the alternatives were duly advertised, and even the more remote ones possibly had appeal to the leisurely, contemplative traveler.45 Actually this diversity of routes had more practical meaning to shippers of freight, especially when the longer routes were made attractive by competitive rates.

Approximately half of the gross receipts of most early Indiana railroads came from the transport of freight.46 Freight rates were so flexible during this period that no accurate estimate on charges as they applied to various commodities can yet be given, but considerable data exists about the types and quantities of freight carried on several of the roads. During the months when a road was running only to the nearest town to which track had been laid down, the usual pattern was a flow of farm commodities from the smaller terminal to the larger and a simultaneous flow of finished goods from the larger to the smaller. For example, during a three months' period when the Peru road was operating only between Noblesville and Indianapolis, Noblesville shipped southward to Indianapolis 1,000 barrels of flour, 218 barrels of eggs, and over 21,000 pounds of bacon; in turn Indianapolis shipped northward 25 plows, 126 barrels of salt, 36 kegs of powder, and 20,000 feet of lumber.47 This pattern was soon altered if the rural terminal became a junction point for one or more other roads. It then served as a trans-shipment center where all kinds of goods from a wider

<sup>&</sup>lt;sup>45</sup> For typical items publicizing various rail routes see *ibid.*, May 5, 17, 18, October 28, November 9, December 12, 1853, February 1, 1854.

<sup>46</sup> Ibid., October 2, 1851, February 22, April 21, 1854. There were exceptions: for example, the Bellefontaine company reported for the latter six months of 1853 \$38,790.90 in passenger receipts and \$73,398.85

in freight. See *ibid.*, January 27, 1854. <sup>47</sup> *Ibid.*, October 2, 1851.

region were accumulated for shipment to more distant markets.48

Although corn and wheat were among the most important items of freight transported by the Indiana railroads to Cincinnati and other eastern cities, hogs were probably the most important single commodity.49 During the weeks of late fall and early winter carload after carload of "porkers" was gathered from outlying areas and sent to the slaughtering centers. In the early 1850's the Madison and Indianapolis road probably carried the bulk of this traffic, transporting as many as thirty or forty loads in a single day, but the Lafayette, the Bellefontaine, and the Lawrenceburgh lines also had their share. 50 Some of the longest and most heavily loaded freight trains during these years were those carrying rails and other building equipment for roads under construction.<sup>51</sup> Again this was the type of business from which the Madison road benefited greatly, since its southern terminus was a principal landing point for heavy river shipments from both east and west. But in the long run the Madison road paid dearly for helping to supply its future competitors.

When Indiana actually got around to building railroads, many of the false notions associated with roadbeds and track had become less current.<sup>52</sup> But, nevertheless, some of the track laid down on Indiana roads was the outmoded "flatbar" rail, i.e., a wooden base covered with bar iron. The Madison and Indianapolis Railroad company used this type of rail from Madison to Vernon until replaced by "compound" rail in 1853; the New Albany and Salem used flat-bar rail over the southern portion of its route and some of the early feeder lines over their entire length.<sup>53</sup> Because of the relative

<sup>&</sup>lt;sup>48</sup> Greencastle, at the junction of the Terre Haute and Indianapolis and the New Albany and Salem roads, was such a clearing point. In one instance, 15,000-20,000 barrels of pork accumulated there for eventual shipment to New York via Lafayette and Detroit. *Ibid.*, March 23, 1854.

<sup>&</sup>lt;sup>49</sup> Ibid., October 2, 1851, November 10, 1853, March 27, 1854.

<sup>50</sup> Ibid., December 3, October 13, November 9, December 21, 1853.

<sup>&</sup>lt;sup>51</sup> Ibid., September 24, December 1, 1851, March 20, May 14, 1852.

 $<sup>^{52}</sup>$  One of these was the belief that by using locally available materials a railroad could be built for as little as \$2,000 per mile. For example, see ibid., February 2, 1831.

<sup>&</sup>lt;sup>53</sup> Ibid., November 26, 1851, June 2, July 22, 1853. The "compound" rail was possibly of solid wrought-iron construction. For a description of some of the rails used during this period see Emory R. Johnson and Thurman W. Van Metre, Principles of Railroad Transportation (New York, 1917), 38-43.

cheapness of this kind of rail, the Peru and Indianapolis company tried it up to Noblesville but was obliged to complete the remaining portion with the more serviceable "Trail."<sup>54</sup>

The expense of the T-rail probably did as much as any single factor to slow down railroad building in Indiana during this period. The Lawrenceburgh and Upper Mississippi company paid between \$38 and \$40 a ton for its T-rail, and by the time the line was finished officials claimed that the value of the rail had almost doubled on the world market.55 A mile of T-rail track cost around \$6,000—about one-third of the entire construction cost, including all the other construction equipment, the right of way, rolling stock, and labor. 56 Much of the T-rail used on Indiana roads in the 1850's was manufactured in Wales and shipped to the United States via New York or New Orleans. 57 The further shipment of this extremely heavy material to the locality where it was to be laid down was costly and time consuming. Delays in receiving it were often given as the cause for failure to abide by projected building schedules.58

Although track gauge was an important factor in the railroad rivalry that developed in eastern areas, it was relatively unimportant among the early Indiana roads. Most of the track laid in Indiana adhered to what by the 1850's was considered standard gauge, i.e., 4 foot, 8½ inches. Exceptions to this were the 6-foot, or "Erie," gauge used by the Ohio and Mississippi company in its proposed 160-mile road across southern Indiana, and the 4-foot-10-inch, or "Ohio," gauge which was later (1854) adopted by the Bellefontaine line from Indianapolis to Union. Since the Bellefontaine road was really an extension of the Ohio rail network into the state of Indiana, officials of this company found it ex-

<sup>54</sup> Indiana Journal, May 13, November 22, 1852.

<sup>&</sup>lt;sup>55</sup> *Ibid.*, December 23, 1853.

<sup>&</sup>lt;sup>56</sup> *Ibid.*, November 3, 1851.

<sup>&</sup>lt;sup>57</sup> Company report, Lafayette and Indianapolis Railroad, 1851, p. 4; Indiana Journal, February 4, 1852.

<sup>&</sup>lt;sup>58</sup> Indiana Journal, November 10, 1851, December 16, 1852, July 2, 1853.

<sup>&</sup>lt;sup>59</sup> A discussion of gauge controversies can be found in George R. Taylor and Irene D. Neu, *The American Railroad Network*, 1861-1890 (Cambridge, Mass., 1956).

<sup>60</sup> Indiana Journal, January 20, June 24, September 20, 1853, March 21, 1854.

pedient to adhere to the Ohio standard.<sup>61</sup> Only a segment of the 6-foot track of the Ohio and Mississippi had been completed in 1855, so this drastic gauge difference did not cause much trouble until later. Early in 1854 the Lawrenceburgh and Upper Mississippi company worked out an arrangement with officials of the Ohio and Mississippi whereby a third rail was laid down between Lawrenceburg and Cincinnati. The Lawrenceburgh company trains were permitted to use this entry into the Queen City by sharing one-fifth of their through-traffic receipts with the Ohio and Mississippi company.<sup>62</sup>

Initial rolling stock for the railroads was procured by officials of the companies soon after construction began. At least one locomotive and several flatcars and gravel cars were required to carry building materials over the finished portion of the road to the building point. Additional engines and cars were ordered when the road approached the operational stage.<sup>63</sup> As the Lawrenceburgh company prepared to open its through line, officials reported rolling stock valued at \$134,053, including 7 engines, 79 gravel cars, 25 boxcars, 44 "platform" (flat) cars, and only 2 passenger cars. Eight more engines, 100 boxcars, and 5 new passenger cars had also been ordered.<sup>64</sup> A few months before the New Albany and Salem opened its 288-mile line, it owned 23 locomotives.<sup>65</sup>

Most of the rolling stock used on the Indiana roads of the early 1850's was probably of the standard types amply described by Seymour Dunbar and others. 66 Locomotives were chiefly of eastern manufacture, most of them having been built in Boston or Philadelphia. 67 Once received they were given appropriate names, usually that of a company official, a swift animal, or one of the localities along the route; for example, the Indiana Central road had the Samuel Hannah

<sup>&</sup>lt;sup>61</sup> See map No. 2, Taylor and Neu, The American Railroad Network, 1861-1890.

<sup>62</sup> Indiana Journal, March 27, 1855.

<sup>&</sup>lt;sup>63</sup> Company report, Lafayette and Indianapolis Railroad, 1851, p. 5; Indiana Journal, September 29, 1851, December 20, 1852, January 27, 1854.

<sup>64</sup> Indiana Journal, July 6, 1853.

<sup>65</sup> Ibid., December 7, 1853.

<sup>66</sup> Seymour Dunbar, A History of Travel in America (4 vols., Indianapolis, 1915), III, xliv, xlv.

<sup>67</sup> Indiana Journal, September 27, 29, 1851, February 25, April 28, 1853.

and Old Wayne, the Madison road the Gazelle, the Bellefontaine the Poney [sic], and the Terre Haute the Vigo. Many of the passenger cars for the early roads were manufactured in either Dayton or Columbus, Ohio. They were invariably introduced by the press as being "splendid" in appearance, but little additional information was supplied. The capacity was about fifty. Since most trains usually carried only a few passenger cars on a regular run, many travelers were obliged to take seats on other cars. Boxcars and platform cars, which made up the bulk of the rolling stock for most of the roads, were crude and rather nondescript. They were sufficiently simple in design that on occasion they could be constructed at the railroad's own shops.

By 1855 most completed roads had telegraph service extended along their routes, but it is not clear from available reports just what this facility contributed to the operation of the railroads. Most companies also were granted contracts for carrying mail over the area of their routes. Although mail was thus speeded to distant points, postal service to smaller communities which had been regular stops on stage lines was sometimes slowed. Express service, operated principally by the Adams Company, became an important adjunct of the railroads. Express cars were included in some of the larger trains, and the company's agents were kept busy transferring more valuable freight at important junctions.

Confining the account of railroad developments to a description of track laying and scheduled train service would seriously distort the history of Indiana's early railroad building. The classic iceberg example is certainly applicable here, for what is concealed below the surface may be immeasurably more important than what is visible; for example,

<sup>&</sup>lt;sup>68</sup> *Ibid.*, February 25, 1853, November 10, 1851, September 6, 1853, October 29, 1851.

<sup>&</sup>lt;sup>69</sup> *Ibid.*, October 7, December 25, 27, 1851, March 18, 1852, April 28, October 13, 1853.

<sup>&</sup>lt;sup>70</sup> *Ibid.*, July 23, 1853.

<sup>71</sup> Company report, Lafayette and Indianapolis Railroad, 1851, p. 5.

 $<sup>^{72}</sup>$  Indiana Journal, December 8, 1851, March 5, November 15, 1853.

<sup>&</sup>lt;sup>73</sup> Ibid., November 5, 1851, June 29, 1852, November 17, 1854.

<sup>&</sup>lt;sup>74</sup> *Ibid.*, December 17, 1851.

<sup>75</sup> Ibid., March 13, 1852, January 8, 1853.

the number of railroad proposals of the early 1850's almost defies enumeration. Distinguishing between projects which were more and those which were less serious in intent requires the utmost vigilance from the later investigator. Just about everybody wanted to build railroads whether the building made sense or not. "There seems to be a kind of Railroad mania abroad," remarked the editor of the *Indiana Journal* in the spring of 1853. "In almost every newspaper within our own and adjoining States, we find some new Road projected. The last one is from Covington through Pinhook to Lafayette! There are at least a dozen talked of from the Atlantic to the Pacific." 18

As yet no attempt has been made in the present study to determine precisely how many separate companies were chartered in the 1850's to build railroads in Indiana, but a day by day survey of the Indiana Journal reveals scores of newly projected roads. A conservative estimate of their proposed mileage would be over thirty-five hundred—more than double the amount of track laid during the 1850-1855 period. The peak of railroad optimism and agitation was reached in 1853; during this year alone at least twenty-five new roads, with a total distance of over seventeen hundred miles, occasioned some degree of discussion or action.77 If all the railroads created on paper had materialized, the cost for the times would have been astronomical. The more seriousminded planners, faced with the prospects of a tightening money market, began to realize this, and there was a sharp decline in new proposals during the latter months of 1854 and on into 1855. "Railroad talk" certainly continued, but it came to center upon a few favored projects, most notably the Evansville Straight Line Railroad, promoted as Indiana's link in the vital transportation chain binding the South to the Union.78

A report of this limited scope is likely to raise far more questions than it settles—questions which will require much systematic research and study before really acceptable answers can be given. Who, for example, were the "promoters"

<sup>&</sup>lt;sup>76</sup> Ibid., April 26, 1853.

<sup>&</sup>lt;sup>77</sup> Estimates are based on writer's survey of railroad projects as they were announced in daily issues of the *Indiana Journal*.

<sup>&</sup>lt;sup>78</sup> Indiana Journal, July 16, 1853, May 1, October 13, 1854, April 13, 1855.

of these early railroads? What did they stand to gain personally from their promotional efforts? What was the relation between railroad building and politics? Did the state government through its legislation aid and abet worthless schemes, or did it maintain an official neutrality which encouraged restraint? What influence did local legislators and lobbyists have in procuring elastic charters and other favored treatment for their projects? To what degree did the rail pattern as it was being established in the 1850's determine the population distribution in the state? How much was the growing urban rivalry a cause and how much an effect of the creation of Indiana's railroads? What role did the land speculator and his "paper towns" play in these developments? Were the farmer and other small investors actually victimized when their devaluated stock slipped from their hands? By what intricate processes of higher finance was local control of these railroads eventually removed? Were investors in eastern cities who accumulated Indiana railroad securities at a bargain price taking undue advantage of western naïveté? To what extent, if any, was railroad building in Indiana one great bunko game?

Answers to these and other basic questions will require not only mountains of factual material but also a genuine insight into the economic and cultural conditions which governed this period of a hundred years ago. That the project may be beyond the time and physical capabilities of an individual scholar is already apparent. But, by the grace of Clio, the project will be continued, and with a demonstration of that same perseverance which characterized some of the pioneer railroad builders, Indiana's railroad story will eventually be told.