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INDUSTRY AND INDUSTRIAL PHILOSOPHY IN TENNESSEE, 1850-1860

By Constantine G. Belissary

Before the Civil War, Tennessee was beyond question an agricultural state.¹ The manufacturing that existed was in the less productive branches, mainly in the primary transformation of raw materials.² Mining, one of the necessary foundations of a balanced industrial system, had only begun to assume respectable proportions in the state just prior to Fort Sumter. Coal mining on a large scale was instituted by the Sewanee Mining Company in 1854.³ The decade of the 1850's was also marked by a frenzied speculation in the copper mines of Polk County.⁴ However, these activities were only isolated phenomena; the great majority of the people of Tennessee lived on farms and secured their livelihood from the time-honored practice of following the plow.

The physiocratic doctrine of the economic and moral superiority of agriculture, long abandoned in the industrial North, still commanded disciples in ante-bellum Tennessee. Its people frowned on manufacturing, preferring to devote their energies to raising and selling cotton, tobacco, and grain, and with the proceeds purchasing the necessary industrial products.⁵ This attitude of dependence upon agriculture as the primary economic prop of the state was clearly expressed by responsible bodies. For instance, on September 2, 1839, the Maury County Agricultural Society, while acknowledging that agriculture, commerce, and industry were contributing factors in the prosperity of a state, resolved that Tennessee should concentrate upon the promotion of the cause of agriculture since circumstances of geography made it the paramount industry of the state.⁶ In 1854 the general assembly of the state was no less explicit in enunciating the doctrine that agriculture was the

¹In 1850 Tennessee had 118,941 farmers and only 66 iron-workers, 26 industrial weavers. *Seventh Census of the United States*, 1850, p. 584.

²Total value of manufactured products in Tennessee was \$17,987,000, flour-milling leading with \$4,124,812, followed by lumber products valued at \$2,199,703. *Eighth Census of the United States, Manufacturers*, 1860, III, 578-79. In this census, mining and quarrying were placed under the category of manufacturing industries; subsequent censuses classified these economic activities separately.

³Originally chartered in 1852, this company was controlled by New York capital. It was the parent company of the Tennessee Coal, Iron and Railroad Company, one of the greatest industrial units in the South after the Civil War. For an account of its early history see *Nashville Republican Banner*, October 4, 1867.

⁴The best study of early copper-mining in Tennessee can be found in R. E. Barclay, *Ducktown Back in Raht's Time* (Chapel Hill, 1946).

⁵For ante-bellum attitudes upon the relative importance of agriculture see Oliver P. Temple, *An Address Delivered Before the Knoxville Industrial Association* (Knoxville, 1869), 17.

⁶Blanche Henry Clark, *The Tennessee Yeomen, 1840-1860* (Nashville, 1942), 75.

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source and foundation of all industries.⁷ The governor, Andrew Johnson, endorsing the action of this legislature in creating an agricultural bureau, paid due tribute to farming as the leading interest of Tennessee, and contended that it would always hold its position of predominance.⁸

An organ of the native agriculturist in the late 1850's, the *Tennessee Farmer and Mechanic*, employing the effective device of analogy, expressed the same idea in the following words:

Every business in life is mainly dependent for its prosperity upon the labors of agriculture. Agriculture is the body, while the other professions are the members and although the body and members are mutually dependent and reciprocally useful to each other, the body can exist without the members much better than the members can exist without the body. . . . The other classes cannot thrive without the aid of the farmer.⁹

Concomitant with the elevated social and economic prestige attached to agriculture in ante-bellum Tennessee, was the prejudice against factory work on the part of the southern poor whites. The hostile attitude of this class in the Old South toward industrial work is strikingly summarized by a recent student: "Whatever the upper strata of society may have thought of the advantages of factory labor for the lower classes . . . the lower classes themselves showed no desire to be morally and mentally uplifted by fourteen hours a day in the mill."¹⁰

The difficulty of inducing the Tennessee yeoman to desert his coves and acres for the dubious advantages of steady work in factories undoubtedly did much to discourage manufacturing before the Civil War. In this Connection, the tribulations of Asa Faulkner, pioneer industrialist, indicated the obstacles confronting the nascent manufacturer-entrepreneur. Faulkner, a wool-carder by trade who had acquired a small stock of capital, started a cotton factory in McMinn County in 1847, only to find that the local folk refused to beat a path to his door in search for jobs in his fledging enterprise. In order to remove rural prejudice against factory labor, he was compelled to adopt the heroic expedient of putting his own family to work in the mill, thereby showing his neighbors there was nothing inherently evil or dangerous in industrial labor. He said: "In this dilemma, I had a consultation with my wife about the propriety of putting some of our own children in the factory for a short time to break down the foolish prejudice.

⁷This doctrine was stated in the preamble of the act establishing a state agricultural bureau. *Ibid.*, 80.

⁸Cited in *De Bow's Review*, 39 vols. (New Orleans, 1846-1880), XIX (1859), 614.

⁹*Tennessee Farmer and Mechanic* (Nashville, 1856-1857), I (1856), 61. As the title indicates, this magazine also carried materials on the mechanical industries and the industrial workers of Tennessee. It is relevant to note that approximately nine-tenths of each issue was concerned with agriculture.

¹⁰Philip G. Davidson, "Industrialism in the Ante-Bellum South," *South Atlantic Quarterly* (Durham), XXVII (1928), 424.

She consented and we determined to put in the mill one son and two daughters."¹¹

A disgruntled mechanic of Jackson, Tennessee, writing to the *Tennessee Farmer and Mechanic* in 1856, asserted that the cause for the backward state of manufacturing in Tennessee could be attributed to the low social esteem in which mechanics and other manual laborers were held. He went on to add that this attitude led many mechanics to turn to other callings; furthermore, the process would continue unless the people accepted the equality of manufacturing with agriculture as a way of life.¹² The magazine itself subscribed to the idea that the doctrine of the inferiority of manufacturing was inflicting deep wounds to the economy of the state. It admonished its readers to expunge from their minds the belief that "mechanical labor was inconsistent with intelligence, gentility and dignity of character."¹³ In a later issue of the same periodical, the editors took to task the snobbish pose of Tennesseans toward the laborer who was "nothing but a mechanic," pointing out the indispensability of the mechanic arts in completing "the temple of human happiness."¹⁴

However, if the overwhelming majority of the inhabitants of ante-bellum Tennessee did not demonstrate any interest in transforming their state into another Lancashire, there were some who advocated a more diversified economy in which manufacturing would occupy a key place. As early as 1840 Gerard Troost, the eminent geologist, pointing to the mineral resources and water-power potential of East Tennessee, asserted that "Nature had stamped it as country for manufacturing."¹⁵ At about the same time, James Gray Smith, an English traveler, in an immigration brochure, informed English capitalists that East Tennessee offered magnificent opportunities for industrial exploitation.¹⁶

Near the end of the 1840's, the southern Whig press had begun to agitate for domestic manufacturing to repair the economic backwardness of the slave states.¹⁷ In 1849 the Nashville *True Whig*, viewing industry as the palliative for sectional strife, said: "The encouragement of Home Indus-

¹¹A speech delivered by Asa Faulkner to a large crowd at Manchester, Tennessee, July 4, 1874, *Memphis Daily Appeal*, July 17, 1874. The general dislike of southern farmers for industrial work is discussed in Lewis Cecil Gray, *History of Agriculture in the Southern United States to 1860*, 2 vols. (Washington, 1933), II, 933.

¹²Letter of J. B. Conger, in *Tennessee Farmer and Mechanic*, I, 281.

¹³*Ibid.*, 163. This attitude was blamed in the post-war era as being responsible for the industrial infirmity of ante-bellum Tennessee. See Jonesborough *Union Flag*, August 16, 1867; Jackson *Whig and Tribune*, November 11, 1871; Nashville *Republican Banner*, July 15, 1874.

¹⁴*Tennessee Farmer and Mechanic*, II (1857), 261.

¹⁵*The Manufacturers' Record* (Baltimore, 1882-), LXXXVI (1924), Part 2, p. 415.

¹⁶James Gray Smith, *A Brief Historical, Statistical and Descriptive Review of East Tennessee, United States of America. . .* (London, 1842), 3, 18, 38-39.

¹⁷Arthur Charles Cole, *The Whig Party in the South* (Baltimore, 1914), 207. This campaign was largely ineffective. *Ibid.*, 209-11.

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try is the pillar of cloud by day, and the pillar of fire by night that must guide the Southern States of this Union throughout the strife for sectional supremacy which ever and anon convulses and agitates the country."¹⁸

Prominent Tennessee Whigs took up the cry of the industrial proponents. Samuel D. Morgan of Nashville, influential Whig politico and wealthy merchant, writing to J. D. B. De Bow, southern publicist and economist, proclaimed:

Tennessee is completely aroused to the importance of diverting a portion of her surplus to manufacturing, and will soon become prominent in that way. The truth is owing to the low price of provisions and labor, and abundance of fuel, with the raw materials right at our doors, we can make coarse cotton and woolen goods cheaper than they can be made elsewhere.¹⁹

The same year witnessed another proposal by a Tennessean aimed at the calculated promotion of manufacturing in the South. Reviewing the bad economic situation of the section, due to a cycle of low agricultural prices, Sterling R. Cockrill, a Nashville Whig who was nationally known for his stock-breeding activities, suggested that the South push through an amendment to the national Constitution providing for the imposition of export duties to encourage home industry. Citing statistics, he pointed out that the cotton crop of 1848 had been sold for only \$55,000,000, and contrasted that with its value of \$180,000,000 when manufactured. If the South received those profits, he continued, then permanent prosperity was assured.²⁰

Apparently no serious attention was paid to Cockrill's recommendation of altering the Constitution in order to aid southern industry. Neither does an examination of the census reports of 1850 and 1860 bear out Morgan's assertion that Tennessee was fully aroused to the significance of manufacturing in developing a prosperous economy.

Yet, in 1852, J. D. B. De Bow, in an optimistic vein, professed to see signs of an industrial awakening in Alabama, Tennessee, and Georgia.²¹ The road to prosperity, he emphasized, was economic diversification, with cotton mills to be the first echelon in the advance of industry. The last depression had demonstrated the ability of southern cotton factories to compete under the most unfavorable conditions.²² One obstacle remained to prevent Alabama,

¹⁸*Ibid.*, 208-09.

¹⁹Letter from Samuel D. Morgan to J. D. B. De Bow, February 27, *De Bow's Review*, VII (1849), 177-78. Morgan was no abstract theoretician, being one of the largest investors in the Lebanon Cotton Mill, organized in 1850, and one of the foremost industrialists of post-war Tennessee. He built the Tennessee Manufacturing Company (1869), the largest textile factory in the state in the 1870's. For a sketch of his life and industrial undertakings, see H. W. Crew (ed.), *History of Nashville, Tennessee*. . . (Nashville, 1890), 627-28.

²⁰Edward Ingle, *Southern Sidelights: A Picture of Social and Economic Life in the South Before the War* (New York, 1896), 72.

²¹*De Bow's Review*, XII (1852), 41.

²²*Ibid.*, 42.

Georgia, Tennessee, and other southern states from embracing industry—the pernicious idea that the industrial system inevitably degraded public and social morality. The reverse was true, De Bow assured his readers. The factory system would redeem “our poor, degraded, half-fed, half-clothed population.”²³ Writing in another connection, he advanced the thesis that Tennessee and other states of the upper South were destined by their location and natural resources to become the provision and iron-manufacturing area of the South.²⁴ De Bow also cited figures from a paper prepared by E. Steadman of Tennessee to show how feasible and profitable factories would be in that state. It was claimed that Tennessee capitalists were realizing only 11 per cent on their investment in cotton raising, where they could easily earn 24 per cent if they put their surplus funds in manufacturing.²⁵

The example of other southern states in industrial pioneering was used by scattered proponents of a diversified economy to spur Tennesseans to stimulate more interest in organizing manufacturing enterprises. Lewis P. Williamson, president of the Agricultural and Mechanical Society of Fayette County, speaking to a large crowd at the Division Fair for West Tennessee in Jackson, October 23, 1855, reminded his listeners that Georgia, through a system of railroad building and cotton manufacturing in conjunction with a well-conceived agricultural program, had become “the banner State of the South.” He urged the citizens of the state to follow in the footsteps of her progressive neighbor.²⁶ Earlier that year the farmers of Fayette County were told that they should support the erection of cotton, woolen, and shoe factories. The timid who considered such projects chimerical were advised to reflect upon the success of the Prattville factory in Alabama and the Graniteville factory in South Carolina, both having been started under unfavorable conditions, yet each developing into “a miniature Lowell,” yielding higher profits than cotton factories in the North. The speaker, Calvin Jones, went on to declaim:

Is there no enterprise among us? Is there no congenial home here for mechanical genius and mechanical skill, and art, and mechanical invention? . . . But it is said our country is unsuited to manufacturing. This is not so. The South can manufacture and Alabama, Georgia, the Carolinas and Virginia, and our Tennessee

²³*Ibid.*, 49.

²⁴J. D. B. De Bow, *The Industrial Resources, etc., of the Southern and Western States*, 3 vols. (New Orleans, 1853), II, 119-20. This work is a valuable compilation of facts on industry, agriculture and commerce of the Old South.

²⁵*Ibid.*, 124-26.

²⁶Tennessee General Assembly, *Appendix to Senate Journal, 1857-1858*, Second Biennial Report of the State Agricultural Bureau of Tennessee, 417.

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have demonstrated the fact that where the raw material is produced, there, too, the factory can flourish.²⁷

In the opinion of one critical observer, not only were the citizens of Tennessee, unfortunately for the welfare of the state, indifferent to manufacturing, but those industrial enterprises that did exist showed little of the bustling competence of northern manufacturers in selling their products. While the local manufacturers were satisfied "to hide their lights under a bushel," their shrewd Yankee competitors diligently retained their monopoly of the native markets. The *Tennessee Farmer and Mechanic* prophesied that Tennessee industry was foredoomed unless it took lessons from the North and advertised its products.²⁸

Conscious of the backward condition of industry in the state when compared with the Northeast and Middle West, acute men looked around for causes. Some found those causes in the lack of utilitarian education and appreciation of the industrial arts. Ex-governor Aaron V. Brown, speaking at Knoxville in October, 1854, informed his audience that the continued progress of the state demanded the establishment of professorial chairs for instruction in the general principles of the mechanical sciences. Furthermore, this instruction should begin in the elementary schools. Nor should the adult workers be neglected; their needs could be met by the formation of mechanics' institutes, which Brown believed should be organized in every city, town, and village in the state.²⁹

Brown was not alone in viewing manufacturing prosperity as dependent upon the proper education of the industrial classes. The *Tennessee Farmer and Mechanic*, in 1856, in full agreement, added:

We have, therefore, every reason to hope that, were scientific knowledge universally diffused among the working-classes, every department of the useful arts would proceed with a rapid progress to perfection, and new arts and inventions, hitherto unknown, be introduced on the theatre of the world, to increase the enjoyments of domestic society, and embellish the face of nature.³⁰

In the following year, in the same journal, an editorial stressed the interdependence of scientific advance and manufacturing progress. After scolding the industrial workers of the state for entertaining the notion that the physical sciences were beyond their power of comprehension, the writer proposed that "the mechanic must go to the study and the student to the

²⁷Address of Calvin Jones before the Agricultural and Mechanical Society of Fayette County, Tennessee, April, 1855, cited in *Tennessee Farmer and Mechanic*, I, 268-67.

²⁸*Ibid.*, II (1857), 119.

²⁹Tennessee General Assembly, *Appendix to the Senate Journal*, 1855-1856, First Biennial Report of the State Agricultural Bureau, 287.

³⁰*Tennessee Farmer and Mechanic*, I, 213-14.

workshop. In this manner we would educate labor and set knowledge at work."⁸¹

Public opinion in Tennessee, however, was not ready for a comprehensive system of public education, and much less ready to support the installation of a program of industrial education. Though a law had been enacted in 1854 imposing taxes for the support of common schools, the funds provided were inadequate. Furthermore, the law failed to provide a central, supervisory authority, and the schools thus organized under the law of 1854 could not hold their own with private and denominational institutions. The proponents of public education also had to contend with the traditional hostility of southern property-holders to the use of state funds for educational purposes. For these reasons the state of public education was still unsatisfactory at the advent of the Civil War.⁸²

While Tennessee was not making the industrial gains in the 1850's that were common to the states north of the Ohio, it was not totally static in the departments of mining, manufacturing and transportation. The considerable mineral wealth of the Cumberland Mountains and the Smokies invited commercial exploitation.⁸³ Large scale coal mining, stimulated by the construction of railroads, began in 1854, and by 1860 had attained respectable figures.⁸⁴

With adequate coal and iron resources, Tennessee made solid progress in the manufacture of iron in this era. From pioneer days the state had utilized its iron ore deposits. Furnaces and bloomeries were in operation as early as the 1790's.⁸⁵ By 1860 Tennessee was third in bloomery output, after Pennsylvania and New York.⁸⁶ Iron-making was concentrated in northeastern Tennessee and in Middle Tennessee around Clarksville.⁸⁷ Even taking into account the fact that most Tennessee iron was being made in charcoal furnaces and with primitive facilities as late as 1854, it sold at \$10 a ton, much cheaper than Ohio iron.⁸⁸ Moreover, substantial gains were recorded during the decade in the more advanced stages of iron manufacturing. In Chattanooga, just emerging from the status of a village, the Chattanooga Foundry and Machine Shop was established in 1850, to be followed in 1860 by the erection of a foundry known as the Vulcan Iron

⁸¹*Ibid.*, II (1857), 27.

⁸²Discussion of the educational conditions in Tennessee in the 1850's in Robert Hiram White, *Development of the Tennessee State Educational Organization, 1796-1929* (Kingsport, Tenn., 1929), 61-77.

⁸³A comprehensive survey of the mineral resources of Tennessee is contained in Joseph B. Killebrew, *Introduction to the Resources of Tennessee* (Nashville, 1874).

⁸⁴*House Executive Documents*, 49 Cong., 2 Sess., 1886-1887, XVII, 576. In addition to short historical sketches of various industries, this volume contains an excellent survey of commercial, industrial and agricultural conditions in Tennessee, 1880-1885, see pp. 543-603.

⁸⁵*The Manufacturers' Record*, LXXXVI (1924), Part 2, p. 113; Victor S. Clark, *History of Manufacturing in the United States*, 3 vols. (New York, 1929), I, 542.

⁸⁶*Ibid.*, 501.

⁸⁷*Ibid.*, 499.

⁸⁸*De Bow's Review*, XVII (1854), 303.

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⁴⁷*Ibid.*,

Works.³⁹ Nor was Knoxville completely immune to the effects of the manufacturing fever. In 1853 a machine shop was founded by A. L. Maxwell, a transplanted New Yorker, which became the largest manufacturing enterprise in the city before the war.⁴⁰ However, iron manufacturing was still in its nascent stages in 1860. In capital invested, in men employed, in value of products, Tennessee had a long road to travel before it could lay claim to being a significant area in the iron industry of the nation.⁴¹

Neither did ante-bellum Tennessee show any startling progress in the textile industry, which J. D. B. De Bow believed would be the economic salvation of the South. Home manufacture of cloth persisted long after the factory had rendered it obsolete in the North. One authority asserted that nine-tenths of the people of the state were wearing home-spun as late as 1865.⁴² Joseph B. Killebrew, recalling the conditions and circumstances of his youth, remarked in his manuscript autobiography: "About this period, that is to say between 1820 and 1836, the domestic manufacture of cloth was probably carried on in every farmer's household in Tennessee."⁴³ Dipping into memories of his youth Cordell Hull later said that rural Tennesseans were still using homespun to make their garments years after Appomattox.⁴⁴

The prevalence of domestic manufacture of textiles even as late as the eve of the Civil War indicated the sad state of textile milling in Tennessee before 1860. This was particularly exasperating to the pro-industrialists who insisted that climate, geography, and propinquity to raw materials made Tennessee a natural center of cotton manufacturing. For instance, in 1850 *De Bow's Review* pointed to the economic advantages of Memphis over Lowell in the milling of cotton.⁴⁵ However, the citizens of this important center of the cotton trade continued to manifest but little interest in industry; in 1876 the *Memphis Daily Appeal* was still exhorting its subscribers on the necessity of erecting a cotton factory in the city.⁴⁶ Two small cotton factories, the first established in that city, did not commence operations until the following year.⁴⁷ Other cities were equally negligent in

³⁹S. B. Lowe, one of the great iron-masters of Tennessee in the post-war era, was instrumental in organizing the Vulcan Iron Works. See James W. Livingood, "Chattanooga, Tennessee, Its Economic History in the Years Following Appomattox," East Tennessee Historical Society's *Publications* (Knoxville), No. 15 (1943), 37.

⁴⁰William Rule (ed.), *Standard History of Knoxville, Tennessee, With a Full Outline of the Natural Advantages*. . . (Chicago, 1900), 197. Maxwell was to play an important role in the post-war industry of Knoxville. *Ibid.*, 198.

⁴¹In 1860 the total value of pig-iron produced in Tennessee was estimated at less than \$550,000, and capital invested in this basic industry did not exceed \$1,100,000. *Eighth Census of the United States, Manufactures*, 1860, pp. 578-79.

⁴²Clark, *History of Manufacturing*, I, 439.

⁴³Joseph B. Killebrew, *Recollection of My Life, an Autobiography*, 2 vols. (manuscript autobiography in possession of George Killebrew, Nashville, Tennessee), I, 21.

⁴⁴Cordell Hull, *Memoirs of Cordell Hull*, 2 vols. (New York, 1948), I, 5.

⁴⁵*De Bow's Review*, VIII (1850), 461.

⁴⁶*Memphis Daily Appeal*, June 30, 1876.

⁴⁷*Ibid.*, July 13, 1877.

instigating campaigns to build textile factories. The statistical reports are illuminating on the lack of general interest. Only slight gains were registered between 1850 and 1860. The capital invested in cotton mills increased from \$669,000 in 1850 to \$965,000 in 1860, but the value of cotton goods produced in the latter year was less than \$700,000.⁴⁸ The showing was even more discouraging in wool manufacturing. In 1860 there was only one small factory in the state manufacturing woolen goods, and its total output was worth \$8,100.⁴⁹

The industrial philosophy necessary to the creation of a manufacturing economy did not have much currency in ante-bellum Tennessee. The majority of the population were farmers, holding a physiocratic contempt and dislike for industry and the mechanic arts. Because available capital was invested in land and slaves, too little surplus remained for investment in manufacturing and mining.⁵⁰ The agricultural recovery in the 1850's from the severe depression of the 1840's lent material weight to the Jeffersonian belief in the superiority of farming as a way of life.⁵¹ Neither did the poorer classes of whites living on sub-marginal lands in the Cumberlands and Smokies, as the experience of Asa Faulkner attested, demonstrate any fiery enthusiasm to become industrial operatives. The agricultural classes, whether lordly planters or yeoman farmers, in general, had a definite aversion to industrialism and its revolutionary implications.

There is strong evidence that some of the business men in the cities of Tennessee in this epoch were expanding their economic thinking to include manufacturing and mining, as well as trade and agriculture, as necessary elements of a prosperous and integrated economy. Old-line Whigs, like Arthur S. Colyar and Samuel Morgan, taking to heart the economic program of their old leader, Henry Clay, were trying to interest the people in manufacturing long before the beginning of the Civil War. But in a sense they were prophets without honor in their own land. Men who were later to embrace their economic doctrines were in the 1850's amassing competences as lawyers, merchants, railroad managers and promoters, and cotton factors, indifferent or unlearned in the entrepreneurship of industry.

The shift in economic emphasis after the war from trade, agriculture, and the professions to manufacturing and mining is shown in the careers of numerous local capitalists. The invasion of these energetic forceful men into new fields can be followed in the business life of James C. Warner, one

⁴⁸*Eighth Census of the United States, Manufacturers*, 1860, p. xxi. Compare these figures with the \$115,000,000 of cotton products manufactured in Massachusetts in 1860, and the \$2,371,000 manufactured in Georgia that same year.

⁴⁹*Ibid.*, p. xxxv.

⁵⁰Evidence of the lack of investment capital is seen in the complaints in Memphis in 1860 that fluid capital was not half enough for legitimate business needs, allowing money lenders to exact an unconscionable rate of interest. *De Bow's Review*, XXIX (1860), 369.

⁵¹Clay, *History of Agriculture*, II, 934-35.

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of the great iron manufacturers of Tennessee in the post-war era. He began as a store clerk in Nashville. In the 1850's he had established a thriving hardware business in the growing town of Chattanooga. After the war, however, he wove new patterns of economic enterprise, entering industry with such vigor that he rapidly became a big man in southern manufacturing. He was one of the organizers of the Tennessee Manufacturing Company of Nashville,⁵³ the largest and most prosperous cotton factory in the state in the 1870's, and later was appointed general manager of the Tennessee Coal and Iron Company, soon to become the Tennessee Coal, Iron and Railroad Company, one of the greatest industrial combinations in the South in the last two decades of the nineteenth century. Eager to grasp the main opportunity, he early realized that coke would replace charcoal in the iron industry; therefore he visited Pennsylvania where he learned the coke industry from the ground up. Returning to Tennessee, he erected the first coke furnace in the state. By 1882 he was president of the Tennessee Coal, Iron and Railroad Company, owner of the Rising Fawn Furnace, and a large investor in the Etna Iron Company.⁵³

Warner's career, which illustrated the changes taking place in the economic environment of Tennessee between 1860 and 1880, was by no means unique. It should be noted that the majority of the leading investors in the manufacturing enterprises of Memphis in the 1880's had not been identified with industry before Fort Sumter; in fact, before the war, these capitalists had been, as a rule, merchants and their surplus funds, instead of being diverted to manufacturing, usually found investment in cotton lands.⁵⁴

Other evidence that indicated the weakness of industry and the impotency of the industrial spirit in Tennessee before the war was the absence of desire for immigration. This attitude contrasted sharply with the post-war attitude. The emergent forces of industrialism gathered behind an intensive immigration campaign. It was a primary tenet of the "New South" enthusiasts that post-war Tennessee could achieve economic prosperity only if she changed her economic base from a predominantly agrarian structure to a mixed economy with a strong manufacturing flavor. And to accomplish this objective they thought that immigrants, bringing their skill,

⁵³A lyrical description of this factory is found in the *Nashville Union and American*, September 23, 1871. It was capitalized at \$300,000, and housed about 13,000 spindles and 400 looms.

⁵⁴Crew (ed.), *History of Nashville*, 636-39. For a short biographical sketch of Warner, not overly marked by restraint, see *Nashville Daily American*, December 12, 1879.

⁵⁵This information is derived from a study of the biographical material in James M. Keating and O. F. Vedder, *History of the City of Memphis and Shelby County, Tennessee, with Illustrations and Biographical Sketches of Some of its Prominent Citizens*, 2 vols. (Syracuse, New York, 1888), II, Part III, 1-254. The sketches contained materials on the business careers and the stock-holdings of the men who were treated.

labor, and capital, were necessary. Therefore, between 1865 and the early 1880's a tremendous flood of pamphlets, handbooks, news articles, and letters were printed and circulated for the purposes of stimulating an immigration wave that never materialized.⁵⁵

Ante-bellum Tennessee, however, had but little interest in immigration. The words of the influential, if abusive, "Parson" William G. Brownlow, editor of the nationalistic Knoxville *Whig*, gained the concurrence of many Tennesseans: "Leave us in the peaceful possession of our slaves, and our Northern neighbors may have all the paupers and convicts that pour in upon us from European prisons."⁵⁶ It must be observed, furthermore, that no Tennessee governor in his messages to the legislature between 1849 and 1860 mentioned immigration, in contrast to the post-bellum period in which every governor from 1865 to 1881 beginning with Brownlow himself, devoted a section of his biennial message to the imperative need of promoting immigration for the purpose of developing the rich natural resources of the state.⁵⁷ In the last analysis, it was the industrial group that furnished the spark behind the aggressive immigration campaign during the rise of industry in the state between 1870 and 1890. One must conclude that the absence of pro-immigration sentiment in the 1850's indicated that this group had not attained significant power in the community.

Neither did the ante-bellum press appear interested in advancing the cause of industrial capitalism. On the whole, it seemed to be reasonably content with the economic *status quo*. The lazily indifferent attitude of many Tennessee newspapers before 1860 contrasted sharply with the militant pro-manufacturing philosophy of the city press in the post-war epoch. After the Civil War the Memphis *Daily Appeal*, Knoxville *Daily Chronicle*, Chattanooga *Daily Times*, Nashville *Daily American*, and Nashville *Republican Banner* were loyal apostles of the "New South" with their program of economic diversification through application of manufacturing. Influential editors, such as William Rule of Knoxville, James M. Keating of Memphis, Adolph S. Ochs of Chattanooga, and A. S. Colyar of Nashville, did much to disseminate the doctrine that manufacturing was the key to prosperity. Nor were the small town newspapers entirely immune to the contagion of the industrial spirit. The Athens *Post*, Jonesborough *Union Flag*, Morristown *Gazette*, and others saw Tennessee's economic salvation as depending upon the enthusiastic and intelligent encouragement of industry. But it must be emphasized that this new orientation of economic attitudes did not take place

⁵⁵For a study of immigration policies and programs in Tennessee in the immediate post-war period see article by C. G. Belissary, "Tennessee and Immigration," *Tennessee Historical Quarterly* (Nashville), VII (1948), 229-48.

⁵⁶Quoted in W. B. Hesseltine, "Tennessee's Invitation to Carpetbaggers," *East Tennessee Historical Society's Publications*, No. 4 (1932), 103.

⁵⁷Examination by author in appendices to *House Journals*, Tennessee General Assembly, 1849-1860 and 1865-1881.

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The absence of interest in Tennessee in either immigration or utilitarian education before 1860 indicated the basic weakness of the native industrial proponents. Immigration, which after the war received the zealous support of "New South" enthusiasts as being the solution to industrial backwardness, was of little concern to the planters, farmers, and merchants of Tennessee. Neither did the campaign by a few far-visioned men for the establishment of an educational system which stressed vocational and scientific ends fare any better. The situation was not ripe for sharp changes in immigration attitudes or educational policies. The war and its consequences, however, produced an atmosphere favorable to the development of strong interest and programs in both immigration and vocational education.

The dominant interest of Tennessee down to the Civil War centered in agriculture. The industry that had been developed was of a simple sort, based upon the primary processing of farming products and exploitation of forest resources. A dynamic, powerful, aggressive capitalist group, possessing a coherent industrial program and philosophy, did not exist in the state. The Industrial Revolution for Tennessee was definitely in the future.