



The Economic History of France, 1815-1870

Author(s): Arthur L. Dunham

Source: *The Journal of Modern History*, Jun., 1949, Vol. 21, No. 2 (Jun., 1949), pp. 121-139

Published by: The University of Chicago Press

Stable URL: <https://www.jstor.org/stable/1872042>

---

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at <https://about.jstor.org/terms>



The University of Chicago Press is collaborating with JSTOR to digitize, preserve and extend access to *The Journal of Modern History*

JSTOR

# BIBLIOGRAPHICAL ARTICLE

## THE ECONOMIC HISTORY OF FRANCE, 1815-1870

ARTHUR L. DUNHAM

SO LITTLE work was done before the first World War on French economic history of the nineteenth century that authors venturing into the field seldom penetrated far and relied for their descriptions of agricultural, commercial, and industrial progress on such authorities as Émile Levasseur and the writers of tariff histories, such as Léon Amé, Alphonse Arnauné, and Percy Ashley,<sup>1</sup> together with a few governmental publications, chiefly of a statistical nature. The result has been that in too many English and American books French economic progress is described almost wholly in terms of the tariff and the labor movement, with little reference to the progress of industry and none to that of agriculture, except as they were affected or made manifest by tariff duties. Many French books, especially on labor and transportation, are unsatisfactory to the economic historian because of their emphasis on legal regulations resulting chiefly from the close connection of law with economics in French universities. French writers have not, on the whole, followed Levasseur in his effort to describe the French laborer as a person needing food, shelter, and clothing as well as an organizer and agitator; nor have French writers generally followed Levasseur in indicating the sources they have used in copious footnotes, and still less have they gone beyond him to give a real bibliography.

In bibliographical research there is little help to be obtained in the field of economic history from the economic sections of chapters in general histories, such as that of Ernest Lavisse.<sup>2</sup> One should turn rather to the bibliographies of

<sup>1</sup> Émile LEVASSEUR, *Histoire des classes ouvrières depuis 1789* (2 vols.; Paris, 1859); Léon AMÉ, *Étude sur les tarifs de douanes et sur les traités de commerce* (2 vols., 3d ed.; Paris, 1876); Alphonse ARNAUNÉ, *Le commerce extérieur et les tarifs de douane* (Paris, 1911); and Percy ASHLEY, *Modern tariff history* (2d ed.; London, 1920).

<sup>2</sup> Ernest LAVISSE (ed.), *Histoire de la France contemporaine* (10 vols.; Paris, 1920-22).

A. Grandin, Henri Sée, Georges Espinas, and Henri Pirenne.<sup>3</sup> A type of specialized bibliography helpful to the beginner is to be found in the text of S. B. Clough and C. W. Cole and in that of Ernest Bogart.<sup>4</sup> Another type of bibliography is in the studies produced by the school of human geography founded by Vidal Lablache. Some of these are, of course, almost wholly geographical, or even geological, but most have valuable information on agriculture. They show that a history of French agriculture in the nineteenth century will have to be based chiefly on regional studies. This group of geographical studies has not received sufficient attention from economic historians. The books of J. R. Levainville on Rouen, Albert Demangeon on Picardy, and René Musset on Maine have valuable material for the historian of commerce as well as of agriculture, in both bibliographies and abundant footnotes; while Germain Martin on the Côte-d'Or, Jules Sion on eastern Normandy, Levainville on the Morvan, and Philippe Arbos on the Alps are very useful on agriculture alone. Martin gives a list of regional studies made between 1880 and 1908 which is unique, and Arbos shows how rich a source for research is available in the various investigations by the ministry of agriculture.<sup>5</sup>

<sup>3</sup> A. GRANDIN, *Bibliographie générale des sciences juridiques, politiques, économiques, et sociales de 1800 à 1925-26* (4 vols.; Paris, 1926, with 9 supplements to 1935); Henri SÉE, "Recent work in French economic history," *Economic history review*, I (1927), 137-53; Georges ESPINAS, "Une bibliographie de l'histoire économique et sociale moderne et contemporaine," *Vierteljahrsschrift für Sozial- und Wirtschaftsgeschichte*, III (1905), 649-70; and Henri PIRENNE and OTHERS, *Bibliographie de l'histoire de Belgique* (3d ed.; Brussels, 1931).

<sup>4</sup> S. B. CLOUGH and C. W. COLE, *Economic history of Europe* (Boston, 1941); and E. L. BOGART, *Economic history of Europe 1760-1939* (New York, 1942).

<sup>5</sup> Jacques R. LEVAINVILLE, *Rouen* (Paris, 1913); Albert DEMANGEON, *La plaine picarde* (Paris,

Books or articles on economic history, or economics, that supply really useful bibliographies have been written by Ernest Teilhac, Henri Sée, J. A. Blanqui, and Hubert Bourgin.<sup>6</sup> The most notable book in this group but the least known is that of J. B. Say's successor at the Conservatoire des Arts et Métiers, Jérôme Adolphe Blanqui. It was written originally in 1837 and covers political economy from ancient times to that date, but its bibliography discusses the literature of Europe on the subject broadly and critically, showing an extensive knowledge of English, German, and Spanish works, as well as some Italian. The critical comments of such a well-known teacher and competent economist are precious. Later editions have brought the bibliography down to 1843. This very useful book is rarely cited but exists in this country in the Kress collection of the Harvard Business School.

Next there should be considered books on special topics, such as finance, transportation, and labor, which contain, or are believed to contain, useful bibliographies. Under finance there is the book of J. G. Van Dillen on public banks, which contains nothing on the nineteenth century except two sources, Alphonse Courtois and Germain Martin, both well known already. There is also the great collection of the works of Émile and Isaac Péreire<sup>7</sup> which has been appear-

1905); René MUSSET, *Le Bas-Maine* (Paris, 1917); Germain MARTIN and Paul MARTENOT, "Contribution à l'histoire des classes rurales en France au XIX<sup>e</sup> siècle: la Côte d'Or," *Revue bourguignonne*, Vol. XIX (1909), Nos. 2, 3, and 4; Jules SION, *Les paysans de la Normandie orientale* (Paris, 1909); J. R. LEVAINVILLE, *Le Morvan* (Paris, 1909); and Philippe ARBOS, *La vie pastorale dans les Alpes* (Paris, 1922).

<sup>6</sup> Ernest TEILHAC, *L'œuvre économique de Jean Baptiste Say* (Paris, 1927); Henri SÉE, *La vie économique de France sous la monarchie censitaire 1815-48* (Paris, 1927); J. A. BLANQUI, *Histoire de l'économie politique en Europe depuis les anciens jusqu'à nos jours, suivie d'une bibliographie raisonnée des principaux ouvrages d'économie politique* (2 vols.; Paris, 1837); and Hubert BOURGIN, "L'histoire économique de la France 1800-1830," *Revue d'histoire moderne et contemporaine*, VI (1905), 22-37.

<sup>7</sup> J. G. VAN DILLEN, *History of the principal public banks* (The Hague, 1934); Alphonse COURTOIS, *Histoire des banques en France* (2d ed.; Paris, 1881); Germain MARTIN, *Histoire économique et financière de la France*, Vol. X in *Histoire de la nation française*, ed. Gabriel HANOTAUX (Paris,

ing slowly for many years. If publication is ever completed, this will be a great and valuable source of information on the promotion of banks, investment houses, railroads, other public utilities, and on the Saint-Simonians. Of narrower scope, but actually published, are the books of J. B. Vergeot on the Saint-Simonian conception of credit and its realization; of Paul Mallez, André Nicolle, and V. A. Nigohosian on the finances of the Restoration; and, finally, of Bernhard Mehrens on French institutions of credit and of Johann Plenge on the *Crédit mobilier*. All have excellent bibliographies.<sup>8</sup>

On labor there are two useful bibliographies in English, that of D. C. McKay of Harvard on the national workshops of 1848 and an article of my own covering literature on the period 1815-48. Both are critical. In French there are numerous studies with helpful bibliographies. In a class by itself is, of course, the great work of Levasseur, which will always remain a classic; but in matters of detail it is the work of a pioneer laying the foundations upon which others must build. Next to it in importance is the excellent technical study of François Simiand on wages, whose bibliography is almost priceless because of the keen intelligence, exhaustive research, and sound judgment of its author. Georges Bourgin's article on the labor legislation of the Second Empire contains footnotes that constitute a really useful bibliography. Very different is Édouard Dolléans's history of the labor movement, which has no bibliography at all but only scanty footnotes and is so strongly prejudiced on the side of organized labor that it lacks the impartiality expected of a sound scholar and well-known teacher. The

1927); and Gustave PÉREIRE (ed.), *Œuvres d'Isaac et Émile Péreire* (publication begun in Paris in 1902; many volumes planned, but few published).

<sup>8</sup> J. B. VERGEOT, *Le crédit comme stimulant et régulateur de l'industrie: la conception saint-simonienne, ses réalisations* (Paris, 1918); Paul MALLEZ, *La restauration des finances françaises après 1814* (Paris, 1927); André NICOLLE, *Comment la France a payé après Waterloo* (Paris, 1929); V. A. NIGOHOSIAN, *La libération du territoire français après Waterloo, 1815-1818* (Paris, 1929); Bernhard MEHRENS, *Die Entstehung und Entwicklung der grossen französischen Kreditinstitute mit Berichtigung ihres Einflusses auf die wirtschaftliche Entwicklung Frankreichs* (Stuttgart, 1911), and Johann PLENGE, *Die erste Anlagebank: Gründung und Geschichte des Crédit Mobilier* (Tübingen, 1903; 2d ed., Essen, 1921).

books of Mmes Hilde Rigaudias-Weiss and Marie M. Kahan-Rabecq are better in the discussion of sources, the former having a really good bibliography and the latter giving much information on the material in government archives; but both are violently prejudiced against employers, bourgeois writers, and even against official investigations unless sponsored by the ministry of labor. Better are the two books of Paul Louis, a writer on the labor movement for many years, which contain very useful bibliographies, and the study of Sreten Maritch on the labor movement in Lyon, which has an excellent bibliography.<sup>9</sup>

In the field of transportation there are two names that stand out in the provision of bibliographies: Laurent de Villedeuil, for his bibliography on railroads and for his editing of several volumes of the Péreire papers on the same subject; and L. M. Jouffroy, a pupil of Henri Hauser, who, in the fourth volume of his monumental work on the Est railroad, has an excellent and exhaustive bibliography covering even material in archives and innumerable pamphlets. Attention should also be called to the Transportation Library of the University of Michigan, which is remarkably rich in books and pamphlets on all forms of French transportation since the beginning of the nineteenth century. Bibliographies on the early French railroads are to be found in articles by Georges Lefranc and by this writer and in the book by Gabriel Roselli. Others covering Saint-Simonian influences on railroads and the Suez Canal are in the books of Maurice Wallon and J. L. de Puyjalon.<sup>10</sup>

<sup>9</sup> D. C. MCKAY, *The national workshops* (Cambridge, Mass., 1933); A. L. DUNHAM, "Industrial life and labor in France 1815-1848," *Journal of economic history*, III (1943), 117-51; François SIMIAND, *Le salaire, l'évolution sociale et la monnaie* (Paris, 1932); Georges BOURGIN, "La législation ouvrière du Second Empire," *Revue des études napoléoniennes*, IV (1913), 220-36; Édouard DOLLÉANS, *Histoire du mouvement ouvrier* (2 vols.; Paris, 1936); Hilde RIGAUDIAS-WEISS, *Les enquêtes ouvrières en France entre 1830 et 1848* (Paris, 1936); M. M. KAHAN-RABECQ, *L'Alsace économique et sociale sous le règne de Louis Philippe* (2 vols.; Paris, 1939); Paul LOUIS, *Histoire de la classe ouvrière en France de la Révolution à nos jours* (Paris, 1927) and *Histoire du socialisme en France de la Révolution à nos jours, 1789-1936* (Paris, 1936); and Sreten MARITCH, *Histoire du mouvement social à Lyon sous le Second Empire* (Paris, 1930).

<sup>10</sup> P. C. LAURENT DE VILLEDEUIL, *Bibliographie*

Finally, there are useful bibliographies on other specialized subjects covering in whole or in part the period 1815-70 in France. Such are the bibliography on dyestuffs by Jules Garçon, the book on coal by Marcel Rouff, the excellent study of the cotton industry of Alsace by Robert Lévy, and this writer's article on coal mining in France between 1815 and 1848. An article of Robert Schnerb on the Second Empire gives many references in section 4 that are of value to the student of French economic history. Further bibliographies are to be found in Sébastien Charléty's books on the Saint-Simonians and the city of Lyon, those of H. N. Boon on Napoleon III, A. M. Gossez on the department of Nord in 1848, Alfred Martineau on Martinique and Guadeloupe, which were great producers of cane sugar competing with beet sugar of continental France, this writer's book on the treaty of 1860 with England, and that of Robert Demoulin on Belgium under William I of the House of Orange, 1815-30.<sup>11</sup>

*des chemins de fer* (3 vols.; Paris, 1903-6) and (ed.) *Œuvres d'Émile et Isaac Péreire rassemblées et commentées* (Series G, "Documents sur l'origine et le développement des chemins de fer") (4 vols.; Paris, 1912-20) (first two vols. on period before 1870); L. M. JOUFFROY, *Ligne de Paris à la frontière d'Allemagne*, Vol. IV, *Recherches sur les sources de la création d'une grande ligne de chemin de fer au XIX<sup>e</sup> siècle* (Paris, 1932); Georges LEFRANC, "The French railroads 1823-42," *Journal of economic and business history*, II (1930), 299-331; A. L. DUNHAM, "How the first French railroads were planned," *Journal of economic history*, I (1941), 12-25; Gabriel ROSELLI, *Les origines d'une ligne de chemins de fer: la Grand' Combe-Beaucaire 1830-1852* (Nîmes, 1931); Maurice WALLON, *Les saint-simoniens et les chemins de fer* (Paris, 1908); and J. L. de PUYJALON, *L'influence des saint-simoniens sur la réalisation de l'isthme de Suez et des chemins de fer* (Paris, 1926).

<sup>11</sup> Jules GARÇON, *Bibliographie des industries tinctoriales depuis les origines jusqu'à 1806* (2 vols.; Paris, 1900; 2d ed., 1907); Marcel ROUFF, *Les mines de charbon en France au XVIII<sup>e</sup> siècle* (Paris, 1922); Robert LÉVY, *Histoire économique de l'industrie cotonnière en Alsace* (Paris, 1912); A. L. DUNHAM, "The development of coal mining in France 1815-1848," *Papers of the Michigan Academy of Science, Arts, and Letters*, XXVII (1941), 567-80; Robert SCHNERB, "Napoléon III and the Second Empire," *Journal of modern history*, VIII (1936), 338-55; Sébastien CHARLÉTY, *Histoire du système saint-simonien* (Paris, 1896) and *Bibliographie critique de l'histoire de Lyon depuis 1789 jusqu'à nos jours* (2 vols.; Lyon, 1903); H. N. BOON, *Rêve et*

Useful for reference are a series of volumes on machines whose patents have expired, published by the director of the Conservatoire des Arts et Métiers of Paris, and three dictionaries or encyclopedias of industry and trade and one on the waterways of France, which give valuable information on the canals, their condition, and the charges under the Restoration.<sup>12</sup> Likewise to be considered both for reference and as sources are the memoirs of various French academies, of which the most important are the Académie des Sciences morales et politiques and the Académie des Sciences. Both Louis Villermé and Louis Reybaud worked for the former in making their valuable investigations into the social and economic conditions prevailing in French industries in 1836–37 and under the Second Empire. Before the Académie des Sciences were read a report in 1823 on the railways of England by the man who built the first railway in France a few years later and one on canals by another engineer in 1821, when the government was undertaking the construction of waterways on a large scale. The memoirs of both academies exist in the United States, as do the memoirs of numerous provincial academies. In studying the economic history of a country where catalogues are always difficult to use and where indexing by subjects and cross-indexing are rare, no possible source of information can be neglected. One should note also the memoirs of the Société centrale d'Agriculture de France and of certain departmental societies, such as that of the Seine. Among the subjects with which they often deal are wool, silk, flax, and coal. The British Mu-

seum has the memoirs of the Société centrale from 1785 to 1888.

Essential for both bibliographical references and direct information on coal and iron mines, the progress of metallurgy, and the various forms of transportation in France are the *Annales des mines*, the *Annales des ponts et chaussées*, and the various governmental reports published most frequently by the ministry of public works but sometimes by the ministries of commerce or the interior.<sup>13</sup> Several complete sets of both the *Annales des mines* and the *Annales des ponts et chaussées* exist in the Library of Congress, the Harvard Library, and the New York Public Library. Both contain statistical surveys, reports of various kinds, and memoirs on special topics. Many of the mining inspectors, as well as those of the Ponts et Chaussées, were able and shrewd observers, or even men of notable ability as scientists.

There are many other annals published in France, some of which are like encyclopedias and others more like reviews. Among the former the most important is the *Annales de l'industrie*, published under changing titles and with the collaboration of others by J. G. Moléon in about eighty volumes from 1820 to 1844. This forms an important source of technical information on manufacturing, agriculture, physics, and chemistry. Several French departments have published annals for various periods, as have institutions like the École des Sciences politiques and the society for the improvement of silk, which flourished from 1837 to 1852. More modern publications of this type useful to the economic historian are the *Annales de Bretagne*,

*réalité dans l'œuvre économique et sociale de Napoléon III* (The Hague, 1936); A. M. GOSSEZ, *Le département du Nord sous la Deuxième République, 1848–52* (Lille, 1904); Alfred MARTINEAU and L. P. MAY, *Trois siècles d'histoire antillaise* (Paris, 1935); A. L. DUNHAM, *The Anglo-French treaty of 1860 and the progress of the industrial revolution in France* (Ann Arbor, 1930); and Robert DEMOULIN, *Guillaume I<sup>er</sup> et la transformation économique des provinces belges 1815–1830* (Paris, 1938).

<sup>12</sup> B. J. CHRISTIAN, *Description des machines et procédés spécifiés dans les brevets d'invention* (20 vols.; Paris, 1818–30); A. BAUDRIMONT and OTHERS (eds.), *Dictionnaire du commerce et de l'industrie* (4 vols.; Brussels, 1837–40); E. O. LAMI, *Dictionnaire encyclopédique et biographique de l'industrie et des arts industriels* (10 vols.; Paris, 1881–91); and A. L. T. RAVINET, *Dictionnaire hydrographique de la France* (2 vols.; Paris, 1824).

<sup>13</sup> F. L. BECQUEY, *Rapport au roi sur la navigation intérieure de la France* (Paris, 1820) (reprinted in MOLÉON, *Annales*, I [1820], 138–53, 193–209, see n. 14 below) and *Statistique des routes royales* (Paris, 1824); France, Ministère de l'Intérieur, *Rapport au roi sur la situation au 31 mars 1825 des canaux entrepris en vertu des lois des 20 juin et 5 août 1821, 17 avril et 14 août 1822* (Paris, 1825); France, Ministère du Commerce et des Travaux publics, *Situation au 31 juillet 1832 des canaux entrepris en vertu des lois des 20 juin et 5 août 1821, 17 avril et 14 août 1822, 24 mars et 8 juin 1825, et 29 mai 1827* (Paris, 1832); France, Ministère de l'Intérieur, *Rapport au roi relative aux chemins vicinaux* (Paris, 1843) (this is at Harvard); and France, Ministère des Travaux publics, *Statistique de la navigation intérieure* (Paris, 1888) and *Les travaux publics de France ... par M. F. Lucas* [roads] ... , *Ed. Collignon* [railroads], *H. de Lagrèné* [rivers and canals] etc. (5 vols.; Paris, 1883).



*de Bourgogne, de l'Est, and de géographie.* Last and most useful of all is the *Annales d'histoire économique et sociale* founded in 1929 by a group led by Marc Bloch and Georges Lefebvre and republished after the second World War under the title of *Annales*. One of the greatest services rendered by this periodical has been its bibliographies, which have made known French studies to foreign economic historians and foreign studies to the scholars of France, thereby stimulating both to greater activity. There should also be included in this section the *Archives des découvertes et des inventions*, begun under the First Empire and continued until the middle of the reign of Louis Philippe, and the *Annuaire statistique*, which, although published regularly only after the period with which this article is concerned, has tables of figures that go far enough back to be useful.<sup>14</sup>

There is, of course, a vast amount of material on French economic history in the national archives. Of particular importance are the Series F<sup>10</sup> on agriculture, F<sup>11</sup> on food, F<sup>12</sup> on commerce and industry, F<sup>14</sup> on the Ponts et Chaussées and mines, F<sup>20</sup> on statistics, and F<sup>11111</sup> giving the reports of the prefects, particularly on agriculture. There is also much to be found in the archives of the departments and in those of the more important municipalities. Finally, there is material of value on France in various series of the British blue books, accounts and papers, and reports of committees of the house of commons. In 1824-25 the well-known committee of Joseph Hume on labor investigated the exportation of British machinery, especially that for the textile industries. Both had important results in legislation and both throw much light on French industrial progress.

The literature on French economic history in periodicals is large and sometimes valuable. The

<sup>14</sup> J. G. MOLÉON and L. S. LE NORMAND, *Annales de l'industrie nationale et étrangère* (24 vols.; Paris, 1820-27) (continued by MOLÉON alone as *Annales de l'industrie manufacturière, agricole et commerciale* [55 vols.; Paris, 1827-44]) (this is at Yale); *Annales de l'École libre des Sciences politiques* (Paris, 1897—) (often classified under *Revue des sciences politiques*); *Annales de la société séricicole* (15 vols.; Paris, 1837-52); *Annales de Bretagne* (Paris, 1886—); *Annales de Bourgogne* (Dijon, 1929—); *Annales de l'Est* (Paris, 1887-1913); *Annales de géographie* (Paris, 1891—); *Archives des découvertes et des inventions nouvelles faites dans les sciences, les arts et les manufactures* (21 vols.; Paris, 1808-28); and *Annuaire statistique de la France* (Paris, 1878-1920).

most important periodical is probably the *Bulletin* of the Société industrielle of Mulhouse published continuously since 1826, of which there is a complete set at the University of Michigan. This society was keenly interested in mechanical improvements and inventions, in transportation, fuel, dyestuffs, and in public questions such as poor relief, the tariff, and legislation on the labor of children. The position and the peculiarly difficult problems of Alsace produced a group of progressive and intelligent industrial leaders which could scarcely be equaled in France and which was well informed regarding industrial progress in Great Britain, Belgium, and the German states, as well as in all parts of France itself. Next in importance is probably the bulletin of the Société d'Encouragement pour l'Industrie nationale, published continuously since 1801. The interests of this group were narrower, and its memoirs and reports cover chiefly mechanical inventions and improvements, but it was semiofficial, having close relations with the French government and the academies and offering prizes that stimulated several inventions. Its bulletin is priceless as a bibliography and can easily be consulted at the society's library in Paris opposite the church of St.-Germain-des-Prés.

There were, in time, numerous other industrial societies, as at Reims, but only one of them appears to have published a useful bulletin at an early date. This was the society of the district of St.-Étienne, where coal and iron mining, the silk industry, and metallurgy in various forms were important and where the problem of transportation was singularly difficult to solve. This society began to issue its bulletin in 1823 and appears to have done so ever since except for a few brief intervals, such as that from 1842 to 1845.<sup>15</sup> One does not find here the international outlook of Alsace or the keen interest in problems of public welfare. The point of view is distinctly provincial and conservative, but the information supplied is often exceedingly valuable. The manufacturers of St.-Étienne were so acutely class conscious that they gave far more interesting information on social conditions and the labor problem than they intended to supply. Their bulletin is also useful on commercial organization and methods. Many industrial centers in France, and probably some agricultural

<sup>15</sup> *Bulletin industriel, publié par la Société d'Agriculture, Sciences, Arts et Commerce de l'Arrondissement de St. Étienne.*

ones, had "societies of emulation" which often published bulletins, as did that of Rouen. The capital of Normandy would seem to have been a sufficiently important commercial and manufacturing center to have supported an industrial society. Its bulletin, begun in 1810, has scattered memoirs and reports of interest to historians of both industry and agriculture. One more bulletin should be mentioned by name, that of a society for improving wool, which is announced as published from 1825 to 1830 but has been found for the first two years only.<sup>16</sup> This almost unknown journal that appeared so briefly has priceless material on the breeding of sheep in France and especially on that of English sheep, whose wool was thought necessary for worsteds. Much light is thereby thrown on the woolen industry and on agriculture.

Other periodicals of great importance remain to be considered. The oldest is the *Revue des deux mondes*, which has appeared continuously since 1830. While usually avoiding highly technical matters and dealing chiefly with questions of great public interest, its articles on transportation, agriculture, the tariff, and banking are often of real importance and value. This review published Charles Coquelin's articles on the linen industry of France in 1839 which form one of the best written and most significant of our sources on the industrial revolution. While economic historians might tend to neglect the *Revue des deux mondes* as primarily literary, they would naturally consult the *Journal des économistes*, begun in 1841, and the useful *Annuaire d'économie politique et de la statistique* published by the same group of writers from 1844 to 1899. Another source of the greatest importance is virtually unknown and is rarely mentioned by economic historians, although it is indispensable for the period of the July Monarchy. This is the *Journal de l'industriel et du capitaliste*, which was published only from January 1836 to December 1840. At the start it had a brilliant group of editors headed by Jules Burat who wrote on agriculture and industry but especially well on transportation. They were accurate in their use of statistics, a rare quality at that period, and liberal in their point of view. It is most regrettable that the publication of this admirable journal ceased after five years and the issue of nine volumes. This writer knows of only two sets, one at the Ministry of

<sup>16</sup> *Bulletin de la Société d'Amélioration des Laines* (Paris, 1825-30).

Commerce and the other at the Bibliothèque nationale in Paris.

The *Economic history review* and the *Journal of economic history* are useful to the economic historian of modern France chiefly as bibliographies or for the few articles already cited. The same can be said for the *Revue belge de philologie et d'histoire* published at Brussels since 1922. The *Revue d'économie politique* since 1902 has had occasional articles of interest to the economic historian, usually on labor. The *Revue d'histoire économique et sociale*, appearing first in 1907 as the *Revue d'histoire des doctrines économiques et sociales* and then adopting the simpler title after 1919, has three articles by Henri Sée, two of them on the agriculture of the earlier nineteenth century and one on the labor movement in the same period.<sup>17</sup> The *Revue d'histoire moderne et contemporaine*, published from 1899 until the second World War as the organ of the Société d'Histoire moderne, contains half-a-dozen articles of interest to the economic historian: two on labor, two on industrial establishments, two on the agricultural crisis of 1816-17, and one on a railroad.<sup>18</sup> Most of these were published between 1929 and 1939, indicating the increasing interest of French historians in the economic history of their country, which is shown also in the bulletin of the Société d'Histoire moderne, which has resumed publication with brief summaries of the papers read at its meetings. The *Revue de l'histoire de Lyon*, published from 1902 to 1914 and from 1921 to 1924, is a continuation of the *Revue du lyonnais* begun

<sup>17</sup> "Les progrès de l'agriculture en France de 1815 à 1848," IX (1921), 67-91; "Quelques aperçus sur la condition de la classe ouvrière et sur le mouvement ouvrier en France de 1815 à 1848," XII (1924), 493-521; and "L'économie rural en Anjou dans la première moitié du XIX<sup>e</sup> siècle," XV (1927), 104-22.

<sup>18</sup> Paul MANTOUX, "Patrons et ouvriers en juillet 1830," III (1901-2), 291-96; Georges WEILL, "Les journaux ouvriers à Paris 1830-70," IX (1907), 89-103; Louis GUENEAU, "La disette de 1816-17 dans une région productive de blé, la Brie," N.S., IV (1929), 18-46, 81-95; Robert MARJOLIN, "Troubles provoquées en France par la disette de 1816-17," N.S., VIII (1933), 423-60; Félix PONTEIL, "L'Alsacien J. G. Humann," N.S., XII (1937), 227-45; R. CROZET, "Contribution à l'histoire de la voie ferrée de Paris à Toulouse et du réseau ferré entre Loire moyenne et Cher," N.S., XIV (1939), 241-60; and Paul LEUILLIOT, "Une monographie d'établissement industriel alsacien en 1826," N.S., V (1930), 56-61.

in 1825 and published fairly continuously thereafter. The two titles are sometimes used interchangeably. It contains four articles of interest to historians, all published between 1910 and 1912. Three deal with labor; the other is concerned with the problem of transportation in the valleys of the Saône and Rhône.<sup>19</sup>

Another type of source is a series of publications in France called *statistiques*, which may be official or issued by private individuals. They may be little more than sets of figures classified methodically without interpretation or explanation or any indication of the degree of care, thoroughness, or accuracy with which they were obtained. They may cover the commerce, agriculture, or industry of the whole of France or of only a single department or town. It is dangerous, therefore, to base important conclusions upon any one of them unless one knows who prepared it, under what conditions, and for what purpose or unless one can check the figures from some other source. For the period 1815-70 there is nothing official that is reliable before the restoration of the statistical service of the government in 1833. The figures published by the customs service on foreign trade, which are generally expressed in francs, must be used with great caution because the price level of 1826 was used until 1850, although most prices decreased, and some did so notably, in that quarter of a century. There are thirteen volumes of the *Statistique de la France* published from 1835 to 1852, when the title was changed to *Statistique générale* and then changed again to *Annuaire statistique* in 1878. Regular annual publication does not seem to have occurred before this last date, and the tables are seldom full enough to be very useful on the period before 1890. An agricultural census was made in 1836 and published in four volumes in 1840-41. Supplementing this is a volume on cereals in 1843 and one on agriculture in general in 1848, both by Alexandre Moreau de Jonnés, an active writer on economic subjects as early as 1824 and, before 1847, director of the census. In 1847 the government published under his direction a census of industry covering sixty-three departments, the

figures for which were collected chiefly in 1845; and in 1856 Moreau de Jonnés published another industrial census in one volume. From his own comments in these volumes of 1845 and 1856 and from an article he wrote in the *Journal des économistes* in 1847, it can be learned that the figures given in these censuses are usually approximative only, are seldom of great value, and should never be used unless in connection with other sources, because grave inaccuracies are frequent. Moreau de Jonnés shows also that the figures given by Count J. A. C. Chaptal in the census of 1812, ordered by Napoleon, are useless and that those given by Chaptal in 1818 are based on the Napoleonic census in great part. It is true that Chaptal collected many himself and that he was both a manufacturer and a shrewd observer, but it is also clear that he loved to swell figures. A census published by J. H. Schnitzler in several volumes in 1846 is severely criticized by Moreau de Jonnés and should be used with caution. Many of the sources he used were good, but others were not, and he was more interested in classifying figures than in explaining their significance. The census published in 1860 in two volumes by Maurice Bloch is too comprehensive and uncritical and is based on the *statistique générale* for 1847 and 1852. The work of George R. Porter, the English statistician, throws some light on French economic conditions under the July Monarchy, especially the French edition of his *Progress of Great Britain*, as translated with comments on France by Philippe Chemin-Dupontès, with a preface by Michel Chevalier.<sup>20</sup>

Local censuses exist and are sometimes very useful. They are available for the departments of Loire, Haut-Rhin, Aisne, Gard, Hérault, and Bouches-du-Rhône, to name only the most useful; and also for those of Drôme, Meurthe, and

<sup>20</sup> J. H. SCHNITZLER, *Statistique générale, méthodique et complète de la France* (4 vols.; Paris, 1846); Maurice BLOCH, *Statistique de la France comparée avec les autres états de l'Europe* (2 vols.; Paris, 1860); France, Bureau de la Statistique générale, *Statistique générale* (Paris, 1835-73) (published very irregularly; the three volumes covering the period 1815-47 appeared in 1842, 1845, and 1847; there is confusion between this *Statistique générale*, the *Statistique de la France*, and the *Annuaire statistique*); and G. R. PORTER, *Progress of the Grande Bretagne accompagné de notes et tableaux présentant les progrès analogues pour la France*, trans. and ed. Philippe CHEMIN-DUPONTÈS, with a preface by Michel CHEVALIER (Paris, 1837).

<sup>19</sup> Paul TRUCHON, "La vie intérieure de la fabrique lyonnaise sous la restauration," IX (1910), 409-34; "Les transports et voies de communication au service du commerce lyonnais sous la restauration," X (1911), 362-73; and "La vie ouvrière à Lyon sous la restauration," XI (1912), 195-222; and Marcel BLANCHARD, "Une émeute ouvrière dans l'Isère en 1819," XIII (1914), 271-91.



Loire-Inférieure. In the case of the Loire, with its important industries and coal mines, there are fortunately two censuses, for 1818 and 1835, which are supplemented by numerous books on the industries concerned and by the publications of the Société industrielle of St.-Étienne that have been mentioned. The department of the Meurthe at the time of this census, 1842, was almost wholly agricultural. In the Aisne, on the other hand, where the census was made in 1826, industry had long been important, and much light is thrown upon the problem of power and upon the competition between the linen and cotton industries. Finally, there is an industrial census of 1846 for the town of Troyes, a notable center of hosiery.<sup>21</sup>

Two significant sources of evidence on the economic history of France in the nineteenth century are the *enquêtes* and the expositions, both published by the government, or with its authorization. The government of the Restoration in its last years was keenly interested in the economic development of the country. It began the series of *enquêtes*, which were usually tariff hearings under the supervision of the higher council of commerce, with iron and sugar in 1829, while the manufacturers of Paris held a similar *enquête* of their own on cotton.<sup>22</sup> These

<sup>21</sup> Joseph DUPLESSY, *Essai statistique sur le département de la Loire* (Montbrison, 1818); Achille PÉNOT (ed.), *Statistique générale du département du Haut-Rhin* (Mulhouse, 1831); Christophe de VILLENEUVE-BARGEMONT, *Statistique du département des Bouches du Rhône* (4 vols.; Marseille, 1821-29); Hippolyte CREUZÉ DE LESSER, *Statistique du département de l'Hérault* (Montpellier, 1824); J. B. L. BRAYER DE BEAUREGARD, *Statistique de l'Aisne* (2 vols.; Saint-Quentin, 1826); J. B. HUET DE COËTLIZAN, *Statistique du département de la Loire Inférieure* (Paris, n.d., but before 1830); Alphonse PEYRET, *Statistique industrielle du département de la Loire* (St.-Étienne, 1835); Nicolas de LACROIX, *Statistique du département de la Drôme* (Valence, 1835); Hector RIVOIRE, *Statistique du département du Gard* (2 vols.; Nîmes, 1842); Henri LEPAGE, *Le département de la Meurthe, statistique historique et administrative* (2 vols.; Nancy, 1842); and N. J. J. GRÉAU, *Statistique de la production de l'arrondissement de la ville de Troyes pour l'année 1846* (Troyes, 1848).

<sup>22</sup> France, Ministère du Commerce et des Manufactures, *Enquête sur les sucres* (Paris, 1829) and *Enquête sur les fers* (Paris, 1829); and *Rapport de la commission libre, nommée par les manufacturiers et négociants de Paris sur l'enquête relative à l'état actuel de l'industrie du coton en France* (Paris, 1829).

were followed by investigations of coal in 1832; prohibitions in 1834 (which meant chiefly the textile industries); long, combed wool, 1836; linen and hemp, 1838; cotton yarn, 1853; cereals, 1859; the treaty of 1860 with England; and the economic system of France in 1870.<sup>23</sup> At each the testimony of manufacturers and merchants was heard with the usual type of special pleading, exaggerating of difficulties, and swelling of expenditures. Yet much can be learned because some manufacturers and many merchants were fair and truthful. These *enquêtes* are fairly familiar to French scholars, particularly that on prohibitions, but not to foreigners because in many cases the records are to be found only in France. Actually the *enquête* of 1834 on prohibitions is at both Harvard and the University of Michigan. But there is one peculiarly difficult case, that of the *enquête* of 1860, published in seven volumes. Only the seventh, which was published separately later, is valuable, for it contains the reports of carefully selected government agents on French industries. Its existence is unknown at the Bibliothèque nationale, but it can be found at the Ministry of Commerce and in the library of the Société d'Encouragement. A few *enquêtes* on labor were held early, one by the Constituent Assembly of 1848, which was not completed but is useful. Some of its material is still unpublished in the archives of the Chamber of Deputies. One part of this *enquête*, that on the canton of Charleville, where the nail industry was going through an acute phase of the industrial revolution, was published separately in 1849 and is cited by

<sup>23</sup> France, Conseil supérieur du Commerce, *Enquête pour la recherche et la constatation des faits qui doivent servir à résoudre la question de savoir s'il y a lieu de supprimer ou de réduire le droit perçu sur les houilles étrangères, à leur importation en France tant par mer que par terre, commencée le 13 novembre 1832* (Paris, 1833); *Enquête relative à diverses prohibitions établies à l'entrée des produits étrangers* (3 vols.; Paris, 1835); France, Conseil supérieur du Commerce, *Enquête sur les fils de laine longue et peignée* (Paris, 1836); *Enquête sur les fils et tissus de lin et de chanvre par le conseil supérieur du commerce, novembre 1838* (Paris, 1838); *Enquête relative au régime de douane des cotons filés* (Paris, 1855); *Enquête par-devant le conseil d'état sur la révision de la législation des céréales* (3 vols.; Paris, 1859); *Enquête: traité de commerce avec l'Angleterre* (7 vols.; Paris, 1860); and *Enquête parlementaire sur le régime économique en France* (Paris, 1872).

Simiand.<sup>24</sup> A separate *enquête* on industry in Paris in 1847-48 was held by the chamber of commerce of the capital and published by it in 1851, while the chamber of commerce of Rouen investigated the cotton and dyestuffs industries of northern Normandy since 1859 and published its findings in 1869.<sup>25</sup>

Expositions were held at frequent intervals beginning in 1819. Achille de Colmont wrote one history of them in 1855. This work is useful; but, in general, the best material is in the report of the central jury of each exposition, usually catalogued under the name of the chairman, although in 1827 a special history of that exposition was written by Blanqui. Reports on special subjects were made to the central jury, and sometimes these were published separately. This was done with those of A. M. Héron de Villefosse on metallurgy in 1819 and 1827. Excellent books on the expositions of 1839 and 1844 were written by Adolphe Blaise. In 1849 the reports of the central jury were issued anonymously, so that these three volumes, which are exceedingly valuable because of the unusual ability of the various reporters, are not catalogued in the Bibliothèque nationale, although they are in the library of the chamber of commerce of Paris and in the British Museum. The most important of the expositions for the economic historian was that at London in 1851. The reports of the French commission were published in sixteen volumes under the chairmanship of Baron Charles Dupin. Volumes IV and V contain a series of valuable historical reports on the textile industries, while Volume III, published in two separate parts, is a history of machinery by General Jean Victor Poncelet, the only really good work on this subject for the earlier nineteenth century but never catalogued under its author's name. The entire set of these priceless volumes is at the University of Michigan. Of the later expositions those of 1862 and 1867 produced reports of much less value, al-

though both were edited by Michel Chevalier. The most useful to the economic historian are those of 1889 and 1900, the last being in six volumes edited by Alfred Picard. In using these reports, it must be borne in mind that the emphasis is on products of luxury and the rewards given to their exhibitors, while coarser and cheaper products bought in great quantities by the working classes are scarcely mentioned, nor are many important manufacturers who did not exhibit. The picture of the French economy thus given is badly distorted unless corrected by information from other sources, such as the *enquêtes*, books on the expositions like those of Blaise, and publications of bodies like the industrial society of Mulhouse, or the numerous histories of cities or of individual industries.<sup>26</sup>

A number of books dealing with the industrial revolution or with other aspects of the changing economic and social structure of France deserve attention. Many cannot be mentioned in this article, just as it will not be possible here to discuss in detail the literature on the Saint-Simonians, economic theory, socialism, or the tariff. It is necessary also to omit a great mass of tendentious or propagandistic literature, whether it deals with the misery of the French people, with transportation, or with the Bank of France. But there are books and articles that deal with more than one subject or express a point of view valuable to the economic historian of

<sup>24</sup> Achille de COLMONT, *Histoire des expositions* (Paris, 1855); *Paris: exposition des produits de l'industrie française 1819*, ed. Louis COSTAZ (Paris, 1819); Louis HÉRICART-FERRAND DE THURY, *Exposition des produits de l'industrie française* (Paris, 1823) and *Exposition de 1827* (Paris, 1827); Jérôme Adolphe BLANQUI, *Histoire de l'exposition des produits de l'industrie française 1827* (Paris, 1827); Charles DUPIN, *Exposition des produits de l'industrie française* (3 vols.; Paris, 1836) and *Exposition de 1839* (3 vols.; Paris, 1839); Adolphe BLAISE, *Exposition de 1839: compte rendu par le comité d'examen du "Mémorial du commerce et de l'industrie"* (Paris, 1839) and *Exposition de 1844* (Paris, 1844); ANON., *Exposition de 1849* (3 vols.; Paris, 1850); *Exposition universelle de 1851: travaux de la commission française*, ed. Charles DUPIN (17 vols.; Paris, 1858-68) (Vol. II was never published); Michel CHEVALIER, *Exposition universelle de 1862: rapports des membres de la section française* (7 vols.; Paris, 1862-64) and *Exposition universelle de 1867* (13 vols.; Paris, 1868); France, Ministère du Commerce, de l'Industrie et des Colonies, *Exposition internationale de 1889 à Paris* (many vols.; Paris, 1889-91); and Alfred PICARD, *Le bilan d'un siècle 1801-1900* (6 vols.; Paris, 1906).

<sup>25</sup> "Enquête du comité du travail de 1848 aux archives de la Chambre des Députés" (unpublished, but used by Levasseur and others); Dr. François Xavier MASSON, *Enquête sur la question du travail agricole et industriel dans le canton de Charleville* (Mézières, 1849).

<sup>26</sup> *Statistique de l'industrie à Paris résultant de l'enquête par la chambre de commerce de Paris pour les années 1847-48* (Paris, 1851); and Alphonse CORDIER, *Exposé de la situation des industries du coton et des produits chimiques dans la Seine Inférieure et l'Eure 1859-69* (Rouen, 1869).

France. Among these are the book of Count Alexandre de Laborde on "the spirit of association," which is really a brilliant economic survey of France between 1815 and 1820. It is carried a little further by the late Léon Cahen's suggestive article on the bourgeoisie under the Restoration. Next come three books by Henri Sée on the economic history of France, especially his general economic history published in German and recently translated into French. Like his articles that have been mentioned, they are full of useful facts, suggestive ideas, and brilliant interpretations. Baron Charles Dupin was a prolific writer and spoke in public even more, but only one of his books need be mentioned here. In it he gives a survey of the production of France in 1827 and supplies much information even if he fails to organize it well or to explain its significance. J. A. R. Marriott, well known in England, has written a book on the revolution of 1848 from the economic point of view, which simply reprints Louis Blanc's *Organisation du travail* and Émile Thomas's well-known and none too accurate account of the national workshops, which has been completely superseded by McKay's book already mentioned for its bibliography. The comments and introduction added by Marriott in his book are both unimportant and inaccurate, but his book has often been cited. Armand Audiganne has done much better in an article on the economic crisis which helped to cause that revolution and was prolonged and intensified by it, and he puts the economic historian further in his debt by a very valuable survey of French industries and their working conditions, which accomplished far more than its immediate purpose of describing the exposition of 1855. An anonymous publication on the Pas-de-Calais in 1900 gives a long survey of industrial and agricultural development in that department during the nineteenth century. It is particularly good on beet sugar, coal, and the tulle industry. Two other books that are useful are the volume of economic studies of Jean Jules Clamageran and a general survey of French economic development by G. Renard and A. Dulac.<sup>27</sup>

<sup>27</sup> Charles MORAZÉ, *La France bourgeoise, XVIII-XX siècles* (Paris, 1946); Alexandre de LABORDE, *De l'esprit d'association dans tous les intérêts de la communauté* (Paris, 1818; 2d ed., 1821 in 2 vols.); Léon CAHEN, "L'enrichissement de la France sous la restauration," *Revue d'histoire moderne*, N.S., V (1930), 178-207; Henri SÉE,

On the financial history of the period 1815-70 there are five books that are outstanding: the great financial history of France in many volumes by the late Marcel Marion of the Sorbonne; Gabriel Ramon's history of the Bank of France written at the request of the bank; two books by Ben Serge Chlepner, one on banking in Belgium and the other on the Belgian money market. Both have an important bearing on the progress of French banking and industry. To them one should add Chlepner's article on the beginning of modern industrial credit and the well-known book by Leland H. Jenks on British capital. All are excellent and indispensable.<sup>28</sup> Useful, too, are the books on banking by Eugen Kaufmann, Count Ferdinand C. F. d'Esterno, and J. G. Courcelle-Seneuil, and the articles by Alphonse Courtois, Jr., on the Bank of France.<sup>29</sup> The study by D'Esterno requires

---

*La vie économique de la France sous la monarchie censitaire 1815-48, esquisse d'une histoire économique et sociale de la France* (Paris, 1929), and *Französische Wirtschaftsgeschichte* (2 vols.; Jena, 1930 and 1936); Charles DUPIN, *Forces productives et commerciales de la France* (Paris, 1827); J. A. R. MARRIOTT, *The French revolution of 1848 in its economic aspects* (2 vols.; Oxford, 1913); Armand AUDIGANNE, "L'industrie française depuis la révolution de février," *Revue des deux mondes*, Nouvelle période, II (1849), 979-1006, and *L'industrie contemporaine* (Paris, 1856); ANON., *Le Pas de Calais au XIX<sup>e</sup> siècle* (4 vols.; Arras, 1900), Vol. III, *Industries*, Vol. IV, *Agriculture*; J. J. CLAMAGERAN, *Études politiques, économiques, et financières* (Paris, 1904); and G. RENARD and A. DULAC, *L'évolution industrielle et agricole depuis 150 ans* (Paris, 1912).

<sup>28</sup> Marcel MARION, *Histoire financière de la France depuis 1715* (6 vols.; Paris, 1914-21) (Vol. V covers 1815-75); Gabriel RAMON, *Histoire de la banque de France d'après les sources originales* (Paris, 1929); B. S. CHLEPNER, *La banque en Belgique* (Brussels, 1926), *Le marché financier belge depuis cent ans* (Brussels, 1930), and "Le début du crédit industriel moderne," *Revue de l'Institut de Sociologie*, IX (1929), 293-316; and L. H. JENKS, *The migration of British capital to 1875* (New York, 1927; 2d ed., 1938).

<sup>29</sup> Eugen KAUFMANN, *Das französische Bankwesen* (Tübingen, 1911; Fr. trans., Paris, 1914); F. C. P. d'ESTERNO, *Des banques départementales en France* (Paris, 1838); J. G. COURCELLE-SENEUIL, *Le crédit et la banque* (Paris, 1840); and Alphonse COURTOIS, Jr., "Histoire des institutions de crédit en France depuis 1796," *Journal des économistes*, XXXIV (1874), 57-74, 207-34 (Courtois provides a history of the Bank of France, 1830-48).

comment. It is serviceable only for its footnotes, in which the author gives valuable information on rates of interest and facilities for credit in various parts of France. Finally, one should mention the book of Octave Noël on the Bank of France, which is useful; two books by Isaac and Émile Péreire on the same subject; and articles by Léonce de Lavergne and Victor Bonnet, both in the *Revue des deux mondes*.<sup>30</sup>

Other books on finance that are helpful are those of Levasseur on the effects of the discovery of gold in California and Australia, of André Gain on the indemnity given the *émigrés*, and of L. J. Loutitch on interest. Claude Jannet in his book on capital throws a little light on banking and various other matters, such as financial crises, although he is inclined to concentrate on the price of wheat and to give too little attention to industrial developments. Moreover, he considers no general crisis or depression important in France before 1857; and that, this writer is convinced, is a serious error. Biographical material is supplied very well indeed by André Liesse on various financiers between 1800 and 1840 and with much prejudice and many errors by J. G. Ouvrard and Jacques Laffitte in their memoirs. Detailed works that provide numerous scraps of evidence on economic history or on technical aspects of finance are the histories of J. B. H. R. Capefigue and M. A. Calmon, the studies of Baron Gonsalve de Nervo and Gustave de Puynode's book on money and credit. All were published during the Second Empire. Both Capefigue and Nervo were royalists and fond of gossip and parliamentary debates. Capefigue, especially, hated Jews and bankers. Puynode gives a valuable criticism of the policy of the Bank of France and information on the prevalence of mortgages on agricultural land. René Stourm provides a useful and modern history of the budget, while Jacques Bresson, un-

der the Restoration, wrote a helpful little book on the Bourse.<sup>31</sup>

In the field of transportation in France in the early nineteenth century there is much literature of value on waterways and still more on railroads, but on roads the few books and articles that exist are nearly all legal or technical only. Among the works on transportation in general, or those that cover more than one of its three principal forms, is the book of Vicomte Georges d'Avenel, which is useful for the period 1815-70, although most of it deals with an earlier period. Of the rather general books, Alfred de Foville's on the transformation of transportation and its economic consequences remains the best. A brilliant survey of the needs of France in transportation is to be found in the *discours préliminaire* of a book published in 1823 by one of the ablest French engineers, Joseph Cordier. Nine years later a group of four engineers, all of whom later became important builders of railroads, made another survey, which is particularly good, on waterways. Between 1837 and 1839 Blanqui published three volumes of lectures, many of which cover transportation and are especially good as a discussion of the problem of a network of local roads which had just been dealt with by the Law of 1836. At the same time, Michel Chevalier wrote an excellent book on the public works of France, although it now seems a little visionary. Among the better sources are a book written a few years

<sup>30</sup> Octave NOËL, *La Banque de France* (Paris, 1891) (this is taken from a larger work entitled *Les banques d'émission en Europe*, Vol. I [Paris, 1888]); Isaac PÉREIRE, *La Banque de France et l'origination du crédit en France* (Paris, 1866) (in the back of this volume is printed a pamphlet written by the PÉREIRES in 1834, "Du système des banques et du système de Law"); Léonce de LAVERGNE, "La Banque de France et les banques départementales," *Revue des deux mondes*, L (1864), 851-69; and Victor BONNET, "La Banque de France et le crédit," *Revue des deux mondes*, XXXVII (1862), 156-75, and "L'enquête sur le crédit," *ibid.*, LX (1865), 738-64.

<sup>31</sup> Émile LEVASSEUR, *La question de l'or* (Paris, 1858); André GAIN, *La restauration et les biens des émigrés* (Nancy, 1929); L. J. LOUITICH, *Des variations du taux de l'intérêt en France de 1800 à nos jours* (Paris, 1930); Claude JANNET, *Le capital, la spéculation et la finance au XIX<sup>e</sup> siècle* (Paris, 1892); Clément JUGLAR, *Des crises commerciales et de leur retour périodique* (Paris, 1862; 2d ed., 1889; 3d ed., 1891); André LIESSE, *Portraits des financiers* (Paris, 1908) (covers J. G. Mollien, M. M. C. Gaudin, Baron J. D. Louis, Luigi Corvetto, Jacques Laffitte, and Count de Villèle); G. J. OUVRARD, *Mémoires* (3 vols., 3d ed.; Paris, 1826); *Mémoires de Jacques Laffitte 1767-1844*, ed. Paul DUCHON (Paris, 1932); J. B. H. R. CAPEFIGUE, *Histoire des opérations financières* (4 vols.; Paris, 1855-60); M. A. CALMON, *Histoire parlementaire des finances de la restauration* (2 vols.; Paris, 1866-70); Baron Gonsalve de NERVO, *Études historiques: les finances françaises sous la restauration* (4 vols.; Paris, 1865-68); Gustave de PUYNODE, *De la monnaie, du crédit, et de l'impôt* (2 vols.; Paris, 1863); René STOURM, *Le budget, son histoire et son mécanisme* (Paris, 1917; Eng. trans., New York, 1917); and Jacques BRESSON, *Des fonds*



later by Charles Étienne Collignon, to prove that railroads could not ruin waterways, and that by Edmond Teisserenc, to prove that they could. Both men were competent and exceedingly well informed. Final surveys of the problem of communications were made by Paul Léon, covering France from 1852 to 1901, and by the Belgian government. Finally, there is the book on finance by Paul Boiteau, which has much useful information on all forms of transportation.<sup>32</sup>

On roads, in addition to the government reports of 1824 and 1843, and the lectures by Blanqui, one has two contemporary books by Baron Antoine A. D. Ballyet (1827) and the engineer Antoine René Polonceau (1829). Then there are five modern works: that by Pierre Daguerre deals with the construction and maintenance of roads and is not historical but has a good bibliography, that by Gustave Margueron is legal but contains valuable information, Antoine Ségalat's book on the taxes which replaced the ancient *corvée* gives vital facts regarding the neglect of local roads and the opposition to their construction by the landowners who controlled legislation under the Restoration, Henri d'Almèras's book on the stagecoaches is too anecdotal to be of much use, but the book on the roads of the district of Forez by Gras of St-

Étienne is excellent although exceedingly difficult to obtain.<sup>33</sup>

On the waterways students have at their disposal a very interesting book by the economist Jean Baptiste Say, surveying the situation in 1818 and showing the need of developing the Parisian port of La Villette; the book by Joseph Michel Dutens on inland navigation, written in 1820 and well known in this country; the statistical survey of French waterways written by Ernest Grangez under the Second Empire, which is fundamental to any study of the subject and is in the New York Public Library; and a book published by the Belgian government in 1842 on the waterways of that country; three books on the navigation of the Seine, two of which were written in the earlier nineteenth century; and a very interesting book written forty years ago on the port of Paris and the waterways that fed it.<sup>34</sup>

In the field of railroad transportation there are five works that are fundamental; the *Journal des chemins de fer*, published since 1842 and existing in this country in the John Crerar Library and at Stanford University; the well-known

<sup>33</sup> Henri CAVAILLÈS, *La route française* (Paris, 1946); Baron A. A. D. BALLYET, *Considérations sur les voies publiques en France* (Paris, 1827); A. R. POLONCEAU, *Observations sur les routes* (Paris, 1829); Pierre DAGUERRE, *La politique de la route* (Bordeaux, 1926); Gustave MARGUERON, *Le droit routier* (Paris, 1930); Antoine SÉGALAT, *L'impôt des prestations* (Toulouse, 1906); Henri d'ALMÉRAS, *Au bon vieux temps des diligences* (Paris, 1931); and L. J. GRAS, *Les routes du Forez* (St.-Étienne, 1925).

<sup>34</sup> J. B. SAY, *Des canaux de navigation dans l'état actuel de la France* (Paris, 1818); J. M. DUTENS, *Histoire de la navigation intérieure de la France* (Paris, 1829); Ernest GRANGEZ, *Précis historique et statistique des voies navigables de la France* (Paris, 1855); Belgium, Ministère des Travaux publics, *Des voies navigables en Belgique* (Brussels, 1842); and ANON., *Notes sur les canaux adjugés en 1822* (Paris, 1832) (the author was Urbain SARTORIS; the pamphlet is in the Guizot collection, University of Michigan, Vol. LXVII); René MUSSET, "La canalisation des rivières en France," *Annales de géographie*, XLVII (1938), 500-504; L. J. GRAS, *Le Forez et le Jarez navigables* (St.-Étienne, 1930); Philippe BARREY, "Le Havre maritime," in J. HAYEM (ed.), *Mémoires et documents*, VI (Paris, 1921), 67-126; BERTIN & CIE, *Mémoire sur la navigation de la Seine du Havre à Paris* (Le Havre, 1829) (Guizot collection, Vol. LXVII); Charles MONIER, *De l'état actuel de la navigation de la Seine entre Rouen et Paris* (Paris, 1832); and François MAURY, *Le port de Paris hier et demain* (Paris, 1904).

*publics français et étrangers et des opérations de la bourse de Paris* (5th ed.; Paris, 1824).

<sup>32</sup> Georges d'AVENEL, *L'évolution des moyens de transport* (Paris, 1919); Alfred de FOVILLE, *De la transformation des moyens de transport et de ses conséquences économiques* (Paris, 1880); J. L. E. CORDIER, *Essais sur la construction des routes, des ponts suspendus, des barrages, etc., extraits de divers ouvrages anglais* (2 vols.; Lille, 1823); Gabriel LAMÉ, Émile CLAPEYRON, and Stéphane and Eugène FLACHAT, *Vues politiques et pratiques sur les travaux publics en France* (Paris, 1832); J. A. BLANQUI, *Cours d'économie industrielle* (3 vols.; Paris, 1837-39); Michel CHEVALIER, *Des intérêts matériels en France* (Paris, 1838); C. E. COLLIGNON, *Du concours des canaux et des chemins de fer* (Paris, 1845); Edmond TEISSERENC, *Études sur les voies de communication* (2 vols.; Paris, 1847); Belgium, Ministère des Travaux Publics, Administration des Ponts et Chaussées et des Chemins de Fer, *Album du développement progressif du réseau des routes, des voies navigables, et des chemins de fer de 1830 à 1880* (Brussels, 1881); Paul LÉON, *Fleuves, canaux, et chemins de fer* (Paris, 1903); and Paul BOITEAU, *Fortune publique et finances de la France* (2 vols.; Paris, 1866).



books on railroads by Audiganne, Richard Kaufmann, and Picard; and the admirable book by Jouffroy on the Est. Of these authors, Audiganne and Jouffroy are very broadly interested in the railroad problem. Kaufmann almost wholly in the legislative side, and Picard in the legal and financial aspects. To these should be added the exceedingly useful little study by Alfred Legoyt on the capitalization, cost of construction, and equipment of French railroads in 1845, which is at Harvard, and the book of Gras of St.-Étienne on the railroads of his district, which were the first three built in France.<sup>35</sup>

A very interesting little book was written by J. L. E. Cordier on the railroads of England in 1830. It has an excellent introduction on the transportation problem of France as he saw it at that early date. Another engineer, Louis Leger Vallée, made for the government a careful survey of the main line of the Nord railroad, which was published in 1837. In 1839 Teisserenc published a book on Belgian railroads, a large part of which deals with France as well, and the Belgian ministry of public works issued a survey of its railroads and highways. A book on the railroads under Louis Philippe was written by Ernest Charles in 1896. It is of little use or interest except to students of legislative debates. Three minor works should be mentioned next: the article by Wallon on the Saint-Simoniens and the railroads, that of Marcel Blanchard on French financing of Swiss railroads under the Second Empire, and the book of Count Napoléon Daru on the French railroad law of 1842. Finally, there are the biographies of the English engineer Joseph Locke, who built the railroad from Paris to Le Havre, and Thomas Brassey, the great railroad contractor and promoter, and Brassey's own book. All three are interesting and that on Locke of real importance to the student of French railroads.<sup>36</sup>

<sup>35</sup> Armand AUDIGANNE, *Les chemins de fer chez tous les peuples* (2 vols. in 1; Paris, 1858); Richard KAUFMANN, *Eisenbahnpolitik Frankreichs* (Berlin, 1896; Fr. trans., Paris, 1900); Alfred PICARD, *Les chemins de fer français* (6 vols.; Paris, 1884-85); L. M. JOUFFROY, *Une étape de la construction des grandes lignes de chemin de fer: la ligne de Paris à la frontière d'Allemagne 1825-52* (4 vols. in 1; Paris, 1932); Alfred LEGOYT, *Le livre des chemins de fer construits, en construction et projetés* (Paris, 1845); and L. J. GRAS, *Histoire des premiers chemins de fer français* (St.-Étienne, 1924).

<sup>36</sup> J. L. E. CORDIER, *Considérations sur les chemins de fer* (Paris, 1830); L. L. VALLÉE, *Exposé général des*

Agriculture in France in this period is a discouraging subject to the economic historian. The two books most frequently cited, those of Lavergne and Michel Augé-Laribé, are of little use. Neither gives a bibliography or adequate references, and neither devotes any appreciable space to the period 1815-70. Sée has a good article on the period 1815-48, and there is another by Le Nevanic on agriculture in one of the departments of Brittany. Both of these give good references, and Le Nevanic shows that much information can be dug out of local archives. The statistician Moreau de Jonnés contributed a very useful article on labor and wages, and Jacob Frédéric Lullin de Châteauevieux wrote a book describing the agricultural conditions he saw on his travels in 1836 which shows that he was a shrewd observer. In addition, there is a life of C. J. A. Mathieu de Dombasle (1777-1843), the great teacher, reformer, and champion of beet sugar, but it has no footnotes or bibliography; while the annals of Mathieu de Dombasle's school of agriculture at Roville have been published for the years 1828-37. These are the best sources the writer has been able to find. To these one should add numerous publications by the French ministry of agriculture, chiefly statistical. These and the many studies in regional geography can usually be found in this country, either in the libraries of our universities or in those of congress or the department of agriculture. Noël Beurieux gives some tables of agricultural prices; M. Mauguin in an administrative study gives much information on grain, wool, and the influence of politics under the Restoration; and Oscar Leclerc-Thouin (or

---

*études faites pour le tracé des chemins de fer de Paris en Belgique* (Paris, 1837); Edmond TEISSERENC, *Les travaux publics en Belgique et les chemins de fer en France* (Paris, 1839) (Guizot collection, Vol. LV); Belgium, Ministère des Travaux publics, *Travaux publics en Belgique 1830-39* (Brussels, 1840); Ernest CHARLES, *Les chemins de fer en France pendant le règne de Louis Philippe* (Paris, 1896); WALLON, *Les saint-simoniens et les chemins de fer*; Marcel BLANCHARD, "Finances françaises et chemins de fer suisses sous le Second Empire," *Revue d'économie politique*, LI (1937), 1591-1606; Napoléon DARU, *Des chemins de fer et de l'application de la loi du 11 juin 1842* (Paris, 1843); Joseph DEVEY, *Life of Joseph Locke* (London, 1862); Sir Arthur HELPS, *Life and labours of Mr. Brassey 1805-70* (Boston, 1874); and Thomas BRASSEY, *Work and wages practically illustrated* (New York, 1872).

Chouin) presents an agricultural survey of the department of Maine-et-Loire.<sup>37</sup>

On the rise of the beet sugar industry in France there is abundant information because of the bitterness of the economic struggle it waged against cane sugar backed by the refiners and all interested in the colonies and ports of France. Most of this literature is technical, legal, statistical, or violently polemical, or all four combined. But in the field of agriculture one is thankful to escape from the Revolution or from the size of landholdings. Émile Légiér published a huge collection of source material on the rise of the beet sugar industry; while Jules Hélot, the secretary of the syndicate of beet sugar manufacturers, wrote a history covering the whole of the nineteenth century. The background of this story in the department of Nord during the Revolution and First Empire is given in detail in a long memoir by Warenghen which is really valuable. A technical and exhaustive history of the legislation on sugar has been written by Émile Boizard. To these one should add the notes of P. Lavollée on the production of cane sugar in the French West Indies; a series of pamphlets by Mathieu de Dombasle on beet sugar between 1823 and 1843, and P. Molroguier's study of the crisis of 1836-39.<sup>38</sup>

<sup>37</sup> L. G. LAVERGNE, *Économie rurale de la France depuis 1789* (Paris, 1860); Michel AUGÉ-LARIBÉ, *L'évolution de la France agricole* (Paris, 1912); SÉE, "Les progrès de l'agriculture en France de 1815 à 1848," *loc. cit.*; LE NEVANIC, "L'agriculture en Ille-et-Vilaine 1815-70," *Annales de Bretagne*, XXV (1910), 224-29; Alexandre MOREAU DE JONNÈS, "Travail et salaires agricoles en France," *Journal des économistes*, XXVII (1850), 201-15; J. F. LULLIN DE CHÂTEAUVIEUX, *Voyages agronomiques* (2 vols; Paris, 1843); René CERCLER, *Mathieu de Dombasle 1777-1843* (Paris, 1946); C. J. A. MATHIEU DE DOMBASLE, *Annales agricoles de Roville* (9 vols., 3d ed.; Paris, 1828-37); France, Ministère de l'Agriculture et du Commerce, *L'agriculture française* (7 vols.; Paris, 1843-47) (on departments of Haute-Garonne, Isère, Hautes-Pyrénées, Nord, Tarn, and Aude), *Conseils généraux de l'agriculture*, etc. (Paris, 1837-46), *L'état des récoltes et céréales 1816-76* (Paris, 1878), and *Statistique forestière de la France* (Paris, 1887-88, 1892); Noël BEAURIEUX, *Les prix du blé en France au XIX<sup>e</sup> siècle* (Paris, 1909); M. MAUGUIN, *Études historiques de l'administration de l'agriculture en France* (3 vols., Paris, 1876-77); and Oscar LECLERC-THOUIN, *L'agriculture dans l'ouest de la France, étudiée plus spécialement dans le département de Maine-et-Loire* (Paris, 1843).

<sup>38</sup> Émile LÉGIÉR, *Histoire des origines de la fabrique du sucre en France* (Paris, 1901); Jules

Commerce is almost as distressing a subject to the economic historian as is agriculture. Even Levasseur's book on the subject is mediocre, while that of Moreau de Jonnès was written near the beginning of this period, when he was young and inexperienced. Even so, it contains shrewd and valuable comments on French trade, as does Count Vincent Marie de Vaublanc's book, although it is really a critique of the customs service and of the prohibitive tariff. There simply is no good history of French commerce. Bordeaux only has two general histories of its trade, which are distinctly useful although lacking in sufficient emphasis on the period 1815-70; and there is also an admirable book on one of the city's great entrepreneurs, Pierre Balguerrie-Stuttenberg. Nothing else is available except statistics published by the government and a book on the fairs of Beaucaire, which lost all their importance with the advent of the railroad.<sup>39</sup>

The internal trade of France is covered to a slight extent by books on foreign trade and smuggling, by the reports of the more important expositions, by bulletins, such as those of the industrial societies of Mulhouse and St.-Étienne, and by the geographical studies mentioned early in this article, such as those on Rouen and

HÉLOT, *Le sucre de betterave en France de 1800 à 1900* (Cambrai, 1900); WARENGHEN, "Histoire des origines de la fabrication du sucre dans le département du Nord," *Mémoires de la Société d'Agriculture du Nord*, Series 3, XII (1909-10), 243-593; Émile BOIZARD, *Histoire de la législation des sucres 1664-1891* (Paris, 1891); P. LAVOLLÉE, *Notes sur les cultures et production de la Martinique et de la Guadeloupe* (Paris, 1841), C. J. A. MATHIEU DE DOMBASLE, *Faits et observations sur la fabrication du sucre de betterave* (2d ed.; Paris, 1823), *Du sucre indigène*, etc. (2d ed.; Paris, 1835), *La question des sucres* (Nancy, 1838), and *Le sucre indigène dans ses rapports avec les produits de l'agriculture* (Nancy, 1843); and P. MOLROQUIER, *Examen de la question des sucres* (Rennes, 1840).

<sup>39</sup> Émile LEVASSEUR, *Histoire du commerce de la France* (2 vols.; Paris, 1911-12) (Vol. II alone is pertinent); Alexandre MOREAU DE JONNÈS, *Le commerce au 19<sup>e</sup> siècle* (Paris, 1825); Vincent M. V. de VAUBLANC, *Du commerce de la France* (Paris, 1824); BACHELIER, *Histoire du commerce de Bordeaux* (4 vols.; Bordeaux, 1892); Pierre de JOINVILLE, *Le reveil économique de Bordeaux sous la restauration, l'armateur Balguerrie-Stuttenberg et son œuvre* (Paris, 1914); *Tableau général du commerce de la France* (35 vols.; Paris, 1866-96); and Charles de GOURCY, *La foire de Beaucaire* (Poitiers, 1911).

Picardy. There is also a group of municipal histories, some of which contain valuable information although it is usually buried under a mass of material quite irrelevant to the economic historian. Such histories are available for Reims, Amiens, Roubaix, Tourcoing, Elbeuf, Darnétal, Louviers, Saint-Quentin, Lille, Nîmes, and Nantes.<sup>40</sup> Of these books those on Amiens, Saint-Quentin, and Nîmes are of real importance, as is that on Roubaix for the change from the manufacture of cottons to that of mixed cloths, one of the most interesting phases of the industrial revolution, which is covered also by the report on the exposition of 1840.

The literature on labor in France is abundant, but a great part of it deals with the labor movement and the legislation hampering its development or with socialism. It is desirable to correct this excessive emphasis on organization, and even more that on legislation, because economic conditions, and especially low wages, were more important in delaying the labor movement than the restraining influences of the government and the police. There are several excellent books or articles that throw much light on the condition of the industrial workers in the earlier nineteenth century. Foremost among these is the well-known book of Dr. Louis Villermé, which will probably never be superseded. Next in interest is a report by Dr. Thouvenin, a factory inspector at Lille, which is almost unknown, partly because its author was not an academician in Paris and partly because it was published in an obscure periodical. Fortunately, both works are in this country. Al-

<sup>40</sup> J. B. F. GÉRUZEZ, *Description historique et statistique de la ville de Reims* (2 vols.; Reims, 1817-18); Georges BOUSSINESQ, *Reims à la fin de la monarchie de juillet* (Angers, 1923); Baron Albéric de CALONNE, *Histoire de la ville d'Amiens* (3 vols.; Amiens, 1899-1906); Théodore LEURDAN, *Histoire de Roubaix* (5 vols.; Roubaix, 1859-64) (see Vol. V); Charles ROUSSEL-DEFONTAINE, *Histoire de Tourcoing* (Lille, 1855); J. E. van der DRIESSCHE, *Histoire de Tourcoing* (2 vols.; Tourcoing, 1928); Auguste GUILMETH, *Histoire de la ville d'Elbeuf* (Rouen, 1842); Alexandre LESGUILLEZ, *Notice historique, topographique, et statistique de la ville de Darnétal* (Rouen, 1835); Paul DEBON, *Essai historique sur Louviers* (Rouen, 1836); Charles PICARD, *St. Quentin, de son commerce et de ses industries* (2 vols.; Saint-Quentin, 1865-67) (see Vol. II); J. G. FLAMMERMONT, *Histoire de l'industrie à Lille* (Lille, 1897); Henri REBOUL, *L'industrie nîmoise du tissage au XIX<sup>e</sup> siècle* (Montpellier, 1914); and Ange GUÉPIN, *Histoire de Nantes* (Nantes, 1839).

most as valuable are the general surveys by Blanqui and Audiganne which appeared a few years later, a serious study by Florent F. J. du Cellier in 1860, and Pierre Quentin-Bauchart's very able book on the social and economic crisis of the revolution of 1848. With these primary sources should be classed two books on the misery of the working classes, those by Baron P. M. S. Bigot de Morogues and Eugène Buret, of which the latter is at Harvard and Columbia. Also of fundamental importance is a group of studies on wages. The French ministry of labor issued publications on this subject in a series of volumes beginning in 1893. Then there are three very valuable books by Armand R. M. Duchâtelier, Émile Chevallier, and the late François Simiand, and the recent article by Paul Louis dealing with the subject under the Restoration. To these one should add Louis Varlez' book on wages in the cotton and linen industries of Belgium, with a very interesting introduction. There are also three new publications: the book of Georges Duveau on the life of the working classes in France under the Second Empire, the article of Georges Bourgin on the crisis faced by the workers in 1830, and that by Édouard Dolléans on the life and thought of the workers from 1848 to 1870.<sup>41</sup>

<sup>41</sup> Louis VILLERMÉ, *Tableau de l'état physique et moral des ouvriers employés dans les manufactures de coton, de laine, et de soie* (2 vols.; Paris, 1840); Dr. THOUVENIN, "De l'influence que l'industrie exerce sur la santé des populations dans les grands centres manufacturiers," *Annales d'hygiène publique*, Series I, XXXVI (1846), 16-46, 277-96; XXXVII (1847), 83-111; J. A. BLANQUI, *Des classes ouvrières en France pendant l'année 1848* (2 vols.; Paris, 1849); Armand AUDIGANNE, *Les populations ouvrières et les industries de la France* (2 vols., 1st ed.; Paris, 1854; 2d ed., 1860; 3d ed., 1870); F. F. J. du CELLIER, *Histoire des classes laborieuses en France* (Paris, 1860); Pierre QUENTIN-BAUCHART, *La crise sociale de 1848* (Paris, 1920); P. M. S. BIGOT DE MOROGUES, *Du paupérisme* (Paris, 1834); Eugène BURET, *De la misère des classes laborieuses* (2 vols.; Paris, 1846); France, Ministère du Travail, *Salaires et coût de l'existence à diverses époques jusqu'en 1910* (Paris, 1911), and Office du Travail, *Salaires et durée du travail dans l'industrie française* (5 vols.; Paris, 1893-97; annual after 1907); A. R. M. DUCHÂTELLIER, *Essai sur les salaires et les prix de consommation de 1202 à 1830* (Paris, 1830); E. V. CHEVALLIER, *Les salaires au 19<sup>e</sup> siècle* (Paris, 1887); François SIMIAND, *Le salaire des ouvriers des mines de charbon en France* (Paris, 1904) and *Le salaire, l'évolution sociale, et la monnaie*; Paul LOUIS, "L'ouvrier français de Louis XVIII à Louis Philippe," *Revue*

On the labor movement there are three books on *compagnonnage*, which was declining after 1815. These are the memoirs of Agricol Perdiguer, now published in a new edition edited by Daniel Halévy; the very laudatory and sentimental book of J. L. Puech on Flora Tristan, which gives little real information on the labor movement; and Étienne Martin Saint-Léon's book on *compagnonnage*, which is excellent. Ernest Frignet in his book on commercial organization gives a brief, but brilliant, survey of the labor movement. More material is given in three books by Paul Louis, although his interest is mainly in the period after 1870 and the information in one book is often repeated in the others. Louis Levine's book on the labor movement has only one chapter on the period from 1800 to 1870. In this group of books one should put Jean Gaumont's history of co-operation in France, which is interesting but fails to show the connection between this movement and economic conditions. The labor movement under the July Monarchy is discussed by Octave Festy in a minute history of the agitation and propaganda of the years 1830-34 and by Jules Favre, who defended the workers of Lyon with enthusiasm. The economic facts behind the great strike of

the silk workers there in 1831 are clearly stated and ably interpreted by the late Ernest Pariset, while the Russian historian Eugène Tarlé has written an excellent article on the coal strike at Rive-de-Gier in 1844.<sup>42</sup>

Pierre Léon Fournier has written a very sound book with a bibliography on the labor legislation of the Second Empire and Georges Renard one on the Second Republic. Édouard Ducpétiaux presents useful observations on the futility of primary education in France and on child labor under the July Monarchy and Georges Bourgin useful information on labor legislation under the Restoration. Jurgen Kuczynski, in his recent book, gives only a few shrewd comments on the situation in France before 1871. One should mention the book of Justin Godart on the workers of Lyon, which is frequently cited, and that of Charles Robert on social improvements and the Second Empire; but this writer has not found a copy of either in the United States. Finally, one can recommend the rather brilliant essay of Charles B. Dupont-White on the relations of labor and capital and the part played in them by the government of the July Monarchy. He was very well informed, both on economic theory and on the events of his time, and his thoughts are well worth consideration. Paul Leroy-Beaulieu wrote a very able article in 1872 on the condition of women in French factories, comparing it with conditions in England, chiefly in the period from 1860 to 1870.<sup>43</sup>

As Léonard Sismondi pointed out early in the nineteenth century, the French peasant was being sucked into factories and the growing slums of cities, where he was to become a pauper through low wages and bad housing. This poverty would be caused by the adoption of ma-

*politique et parlementaire*, CLXXXVIII (1946), 138-49; and L. VARLEZ, *Les salaires dans l'industrie gantoise* (2 vols.; Brussels, 1901-4); Georges DUVEAU, *La vie ouvrière en France sous le Second Empire* (Paris, 1946); Georges BOURGIN, "La crise ouvrière à Paris dans la seconde moitié de 1830," *Revue historique*, CXCVIII (1947), 203-14; and Édouard DOLLÉANS, "Vie et pensée ouvrières entre 1848 et 1871," *Revue historique*, CXCVIII (1947), 62-78.

<sup>42</sup> Agricol PERDIGUIER, *Mémoires d'un compagnon* (Geneva, 1854; 2d ed., Moulins, 1914); J. L. PUECH, *Flora Tristan* (Paris, 1925); Étienne Martin SAINT-LÉON, *Le compagnonnage* (Paris, 1901); Ernest FRIGNET, *Histoire de l'association commerciale* (Paris, 1868); Paul LOUIS, *L'ouvrier devant l'état* (Paris, 1904), *Histoire du mouvement syndical en France 1789-1910* (3d ed.; Paris, 1924), and *Histoire de la classe ouvrière en France de la Révolution à nos jours*; Louis LEVINE, *Labor movement in France* (London, 1912) (2d ed. as *Syndicalism in France* [New York, 1914]); Jean GAUMONT, *Histoire générale de la coopération en France* (2 vols.; Paris, 1923-24); Octave FESTY, *Le mouvement ouvrier au début de la monarchie de juillet 1830-34* (Paris, 1908); Jules FAVRE, *De la coalition des chefs d'atelier de Lyon* (Lyon, 1833); Ernest PARISSET, *Histoire de la fabrique lyonnaise ... depuis le XVI<sup>e</sup> siècle* (Lyon, 1901); and Eugène TARLÉ, "La grande coalition des mineurs de Rive de Gier en 1844," *Revue historique*, CLXXXVII (1936), 249-78.

<sup>43</sup> P. L. FOURNIER, *Le Second Empire et la législation ouvrière* (Paris, 1911); Georges RENARD, *La république de 1848*, in J. L. JAURÈS, *Histoire socialiste*, Vol. IX (Paris, 1906); Édouard DUCPÉTI-AUX, *De la condition physique et morale des jeunes ouvriers* (2 vols.; Brussels, 1843); Georges BOURGIN, "Législation et organisation du travail sous la restauration," *Revue politique et parlementaire*, LXVI (1910), 116-52; Jurgen KUCZYNSKI, *Labour conditions in western Europe 1820-1935* (London, 1937); Justin GODART, *Travailleurs et métiers lyonnais* (Lyon, 1909); Charles ROBERT, *Les améliorations sociales du Second Empire* (2 vols.; Paris, 1868); C. B. DUPONT-WHITE, *Essai sur les relations du travail avec le capital* (Paris, 1846) (in Kress collection); and Paul LEROY-BEAULIEU, "Les ouvrières de fabrique autrefois et aujourd'hui," *Revue des deux mondes*, XCVII (1872), 630-57.



chinery run by power. The beginning of this process in France is described in that brilliant, though unfinished, book of Charles Ballot which emphasizes machines rather than labor. Marcel Gras, in his book on machinery, discusses Sismondi's views in a very useful way but gives little factual information on the period before 1870. Frédéric Passy gave two lectures on the industrial revolution in France under the Second Empire, but, again, supplied few facts and figures. These can be obtained from General Poncelet's history of French machinery in the reports of the exposition of 1851 and in the bulletins of the Société d'Encouragement and the industrial society of Mulhouse. Émile Eude gives technical descriptions and very useful biographical sketches of inventors. Equally useful is the series of volumes on the factories of France published by J. F. Turgan. Similar information, although more purely technical, is supplied by the French ministry of labor in a series of volumes covering the period 1791-1844, which does not appear to be in the United States, and by J. E. Armengaud in nineteen volumes and, also in individual books by G. A. Borgnis, Natalis Briavoine, and Nicolas Gréau. Useful monographs are Rhys Jenkins' short article on Arthur Woolf, whose steam engine was the one most generally adopted in France and whose partner Humphrey Edwards became one of the most important mechanics under the Restoration, and Frank E. Manuel's article on the Luddite movement in France. Henri Tribout's biography of General Poncelet is useless, except for a description of his water wheel.<sup>44</sup>

The progress of metallurgy in France is covered, first, by sources named early in this article, such as the *Annales des mines*, and by the book printed privately by the Comité des Forges and

<sup>44</sup> Charles BALLOT, *L'introduction du machinisme dans l'industrie française* (Paris, 1923); Marcel GRAS, *Du machinisme et de ses conséquences économiques et sociales dans l'industrie moderne* (Paris, 1911); Frédéric PASSY, *Les machines et leur influence sur le développement de l'humanité* (Paris, 1866); Émile EUDE, *Histoire documentaire de la mécanique française* (Paris, 1902); J. F. TURGAN, *Les grandes usines* (18 vols.; Paris, 1866-88); J. E. ARMENGAUD, *Publication industrielle des machines* (19 vols.; Paris, 1843-70) (at Harvard); G. A. BORGNIS, *Traité complet de mécanique appliquée aux arts* (Paris, 1820); Natalis BRIAVOINE, *Sur les inventions et perfectionnements de l'industrie* (Brussels, 1838); N. J. J. GRÉAU, *Delarothière, inventeur mécanicien à Troyes* ("Mémoires de la Société académique de l'Aube") (Troyes, 1867); Rhys JENKINS, "A Cornish engineer, Arthur Woolf, 1766-1837," *Transactions, Newcomen*

now at Harvard. Other sources of primary importance are the book of Héron de Villefosse, the inspector-general of mines under Napoleon; two books on metallurgy in England for the benefit of French ironmasters, the first by P. A. Dufrénoy and Élie de Beaumont and the second by Albert Auguste Perdonnet, one of the ablest French engineers, with the help of Dufrénoy; the study of the government's *enquête* on the iron industry by Baron J. J. Baude, an important owner of coal mines in the basin of the Loire; the book of Jules François, one of the best of the mining inspectors, on the ores of the Pyrenees and the best methods for their treatment; and the history of metallurgy in the Loire by its indefatigable historian L. J. Gras.<sup>45</sup>

Other books on metallurgy that are still important and useful are Georges Hottenguer's study of the iron industry of Lorraine to 1866, Henry Contamine's history of the department of Moselle from 1814 to 1870, and Émile Stainier's history of metallurgy in the district of Charleroi from 1829 to 1867, which throws much light on developments in the French Moselle. Local studies of less importance are those of Dr. Jean Leduc on metallurgy in northwestern France and that of Maurice Leroux on the district of Perche in Normandy. J. R. Levainville's book on the iron industry of France, which is cited frequently, is useless because it covers only the twentieth century and because it is what the French call a work of *vulgarisation*.<sup>46</sup>

*Society*, XIII (1933), 55-68; F. E. MANUEL, "The Luddite movement in France," *Journal of modern history*, X (1938), 180-211; and HENRI TRIBOUT, *Un grand savant: le général Poncelet 1788-1867* (Paris, 1936).

<sup>45</sup> COMITÉ DES FORGES, *La sidérurgie française, 1864-1914* (Paris, 1920); A. M. HÉRON DE VILLESOSSE, *De la richesse minérale de France* (3 vols.; Paris, 1810-19); P. A. DUFRÉNOY and ÉLIE DE BEAUMONT, *Voyage métallurgique en Angleterre* (2 vols.; Paris, 1827); A. A. PERDONNET, *Voyage métallurgique en Angleterre* (Paris, 1837); Baron J. J. BAUDE, *De l'enquête sur les fers et des conditions du bon marché des fers en France* (Paris, 1829); Jules FRANÇOIS, *Recherches sur le gisement et le traitement des minerais de fer dans les Pyrénées* (2 vols.; Paris, 1843); and L. J. GRAS, *Histoire économique de la métallurgie de la Loire* (St.-Étienne, 1908).

<sup>46</sup> Georges HOTTENGUER, *L'ancienne industrie du fer en Lorraine* (Nancy, 1927); Henry CONTAMINE, *Metz et la Moselle de 1814 à 1870* (2 vols.; Nancy, 1932); Émile STAINIER, *Histoire commerciale de la*



On coal mining in France there exist a number of individual studies although none covers the earlier years of this period as do the *Annales des mines* and the *Journal de l'industriel*. There appeared in 1841 the article of Porter, the English statistician; then the technical book of W. Manès on the basin of Saône-et-Loire in 1844, which was followed under the Second Empire by three valuable studies by Amédée Burat, the geologist. Émile Vuillemin wrote two long books on the coal mines of the Nord and of the Pas-de-Calais that are very useful indeed, while A. Garcenot wrote on the mines of Anzin and Dr. Adolphe Mony on Commentry in central France.<sup>47</sup>

On subsidiary industries we have the book of L. J. Gras on hardware at St.-Étienne and that of P. Briez on the making of locks in Picardy. Both are excellent and throw much light on the progress of the industrial revolution in France. To them should be added V. Tahon's study of the nail industry in the region of Charleroi. On the great establishment of Le Creusot there are three rather unsatisfactory books by Napoléon Vadot, Jean Chevalier, and Henri Chazelle. Taken together they give a considerable amount of information. To them should be added an article by Charles Ballot on the foundation of Le Creusot and the introduction of coke in smelting. One should mention finally Jean Chevalier's biography of François Ignace de Wendel, one of the most important ironmasters of Lorraine.<sup>48</sup>

On the textile industries there are several

---

*métallurgie dans le district de Charleroi de 1820 à 1867* (2d ed.; Charleroi, 1873); Jean LEDUC, *Du développement de la production du fer dans le nord-ouest de la France* (Boulogne, 1834); Maurice LEROUX, *L'industrie du fer dans le Perche* (Paris, 1916); and J. R. LEVAINVILLE, *L'industrie du fer en France* (Paris, 1922).

<sup>47</sup> G. R. PORTER, "Coal mines in France, 1841," *Journal of the Statistical Society*, IV (1844), 281-83; W. MANÈS, *Sur les houilles de Saône et Loire* ("Études des gîtes minéraux publiées par l'administration des mines") (Paris, 1844); Amédée BURAT, *Rapport sur les houillères de Blanzay* (Paris, 1851), *Situation de l'industrie houillère en 1855* (Paris, 1857) (similar volumes for 1866-69 and 1872), and *Le matériel des houillères en France et en Belgique* (Paris, 1861); Émile VUILLEMIN, *Les mines de houille d'Aniche: progrès réalisés dans les houillères du nord de la France pendant un siècle* (Paris, 1878) and *Le bassin houiller du Pas de Calais* (2 vols.; Paris, 1880); A. GARCENOT, *Les bassins houillers du nord-ouest de l'Europe (mines d'Anzin)* (Paris, 1884); and Adolphe MONY, *Histoire d'une mine: Commentry* (Paris, 1911).

books that are general surveys or deal with more than one industry and that rank as fundamental sources of information. First among these in reputation is the book by Chaptal, Napoleon's minister of the interior. He covers agriculture and trade as well as industry. His information is useful and his judgments are shrewd, but the figures he gives are usually far from reliable, while he was vain and prejudiced. Nevertheless, he was better informed about the economic life of France than were most of his contemporaries. Next one should note two Alsatian sources, both from Mulhouse: the *Histoire documentaire*, published by its industrial society, which covers the whole nineteenth century, and the industrial census by that society's secretary, Achille Pénot, published in 1831.<sup>49</sup> Both are exceedingly useful and sound on matters of real importance. Louis Reybaud's three studies on the textile industries are cited by everyone, but they seem thin to the economic historian and are devoted chiefly to sociological questions. Finally, there is a little book by one of the most distinguished designers and manufacturers of silks, Camille Beauvais, which he calls an essay on several branches of industry. It covers particularly silk and wool but discusses business methods and commercial policy in France under the Restoration and compares them with English practices. This precious contribution to French economic history is almost unknown.<sup>50</sup>

On the cotton industry the best book is Robert Lévy's on Alsace, already cited,<sup>51</sup> while

<sup>48</sup> L. J. GRAS, *Essai sur l'histoire de la quincaillerie et petite métallurgie à St.-Étienne*, (St.-Étienne, 1904); P. BRIEZ, *Notice sur la serrurerie de Picardie* (Abbeville, 1857); V. TAHON, *L'industrie cloutière au pays de Charleroi* (Charleroi, 1921); Napoléon VADOT, *Le Creusot* (Le Creusot, 1875); Jean CHEVALIER, *Le Creusot* (Le Creusot, 1935); Henri CHAZELLE, *Le Creusot, histoire générale* (Dôle, 1936); Charles BALLOT, "L'introduction de la fonte au coke en France et la fondation du Creusot," *Revue d'histoire des doctrines économiques et sociales*, V (1912), 29-62; and Jean CHEVALIER, *François Ignace de Wendel* (Metz, 1939).

<sup>49</sup> See n. 21 above.

<sup>50</sup> J. A. C. CHAPTAL, *De l'industrie française* (2 vols.; Paris, 1819); SOCIÉTÉ INDUSTRIELLE DE MULHOUSE, *Histoire documentaire de l'industrie de Mulhouse* (2 vols., Mulhouse, 1902); Louis REYBAUD, *Études sur le régime des manufactures*, Vol. I, *Condition des ouvriers en soie* (Paris, 1859), Vol. II, *Le coton* (Paris, 1863), Vol. III, *La laine* (Paris, 1867); and Camille BEAUVAIS, *Essai sur quelques branches de l'industrie française* (Paris, 1825).

<sup>51</sup> See n. 11 above.

the many publications of the industrial society of Mulhouse are a mine of information. On the north of France there is only Jules Houdoy's book on cotton spinning, a piece of violently protectionist propaganda from which a few facts can be extracted. On Normandy the best single source is Levainville's geographical study of Rouen, followed by Gaston de Beaumont's volume on the cotton industry alone and by two useful studies by Alphonse Cordier and J. Édouard Horn on the crisis produced in Norman industry by the American Civil War. Henri Laufenburger's article on the cotton industry of Alsace has already been cited as the best essay on the industrial revolution. On the tulle industry there are three very useful books by S. Ferguson, Jr., William Felkin, and Henri Hénon.<sup>52</sup>

The linen industry is well covered by the *enquête* of 1838<sup>53</sup> and the articles by Charles Coquelin in the *Revue des deux mondes* in 1839. The Belgian government has also published two important studies in the official investigation of 1841-42 and Guillaume Jacquemyns's study of the crisis of 1845-50 in Flanders. Coquelin wrote a book in 1840 on spinning flax and hemp which is technical but important, while Alfred Rénouard published between 1873 and 1879 a series of studies that are chiefly technical. He never wrote a history of the linen industry, although there are references to it which are based simply on the combination of parts of the third and fourth editions of his studies. Finally, there are Alexander J. Warden's book on the linen trade, which has a section on France, and an article by Henri Sée on the linen industry of Maine between 1800 and 1835.<sup>54</sup>

<sup>52</sup> Jules HOUDOY, *La filature du coton dans le nord de la France* (Paris, 1903); LEVAINVILLE, *Rouen*; Gaston de BEAUMONT, *Industrie cotonnière en Normandie* (Paris, 1901); Alphonse CORDIER, *La crise cotonnière dans la Seine Inférieure* (Rouen, 1864); J. E. HORN, *La crise cotonnière et les industries indigènes* (Paris, 1863); Henri LAUFENBURGER, "L'industrie cotonnière du Haut-Rhin," *Revue politique et parlementaire*, CXXV (1925), 389-403; S. FERGUSON, JR., *Histoire du tulle* (Paris, 1862); William FELKIN, *History of hosiery and machine wrought lace* (1st ed.; London, 1845; 2d ed., 1863; 3d ed., 1867); and Henri HÉNON, *L'industrie des tulles et des dentelles mécaniques dans la Pas-de-Calais, 1815-1900* (Paris, 1900).

<sup>53</sup> See n. 23 above.

<sup>54</sup> Belgium, Ministère de l'Intérieur, Direction de l'Industrie, *Enquête sur l'industrie lainière* (2 vols.; Brussels, 1841-42); Guillaume JACQUEMYS, *Histoire de la crise économique de Flandres 1845-50* ("Académie royale de Belgique: Classe des Lettres; Mémoires," Vol. XXVI) (Brussels, 1929); Charles

Special sources on wool and its manufacture are few, and one must rely chiefly on the *enquêtes*, expositions, and municipal histories. There are, however, a technical treatise by Michel Alcan which has a very good historical introduction; two valuable reports by the Parisian merchant Natalis Rondot, one on the woolen industry of Belgium and the other on woollens suitable for export to the Orient; a short biographical sketch on Baron G. L. Ternaux; and a useful history of shawls by one of the leading manufacturers of Cashmeres. The silk industry has done much better. There are books of real importance on Lyon by Charles Beaulieu, A. Beauquis, and Louis Gueneau and two by Ernest Pariset. All are useful, but all are needed in combination to give a fairly clear picture. One has also the history of the ribbon industry of St.-Étienne by Louis Joseph Gras, the municipal history of Nîmes already cited, and regional studies by Élie Reynier on the Vivarais and by Germain Martin on domestic weaving in the Velay.<sup>55</sup>

This article can close most appropriately with a tribute to the remarkable progress in the study of economic history made by the French during and since the second World War which is part of a notable productivity of scholars that gives deep satisfaction to all friends of this courageous and gifted people.

#### UNIVERSITY OF MICHIGAN

COQUELIN, *Essai sur la filature mécanique du lin et du chanvre* (Paris, 1856); Alfred RENOARD, *Études sur le travail du lin* (8 vols., 4th ed.; Paris, 1879) (see Vol. IV); A. J. WARDEN, *The linen trade* (London, 1864); and Henri SÉE, *L'industrie textile et le commerce du Bas Maine* (HAYEM [ed.], *Mémoires*, 2d ser.) (Paris, 1929).

<sup>55</sup> Michel ALCAN, *Traité du travail des laines* (2 vols.; Paris, 1866); Natalis RONDOT, *Rapport au ministre de l'agriculture et du commerce sur l'industrie lainière de la Belgique en 1847* (Paris, 1849) and *Étude pratique des tissus de laine convenables pour la Chine, le Japon, etc.* (Paris, 1847); A. I. SILVESTRE DE SACY, *Notice biographique sur M. le Baron Guillaume Louis Ternaux* (Paris, 1834); Jean REY, *Études pour servir à l'histoire des châles* (Paris, 1823); Charles BEAULIEU, *Histoire du commerce, de l'industrie et des fabriques de Lyon* (Lyon, 1838); A. BEAQUIS, *Histoire économique de la soie* (Paris, 1910); L. GUENEAU, *Lyon et le commerce de la soie* (Lyon, 1923); Ernest PARISSET, *Histoire de la fabrique lyonnaise depuis le 16<sup>e</sup> siècle et Les industries de la soie* (Lyon, 1890); L. J. GRAS, *Histoire de la rubannerie* (St.-Étienne, 1906); Élie REYNIER, *La soie en Vivarais* (Largentière, 1921); and Germain MARTIN, *Le tissage du ruban à domicile dans les campagnes du Velay* (Paris, 1913).