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## THE GREAT TRAIN RACE: RAILWAYS AND THE FRANCO-GERMAN RIVALRY BEFORE 1914

Historians have paid considerable attention to the Great Naval Race between the British and German empires that contributed so conspicuously to heightened tensions before the fateful summer of 1914. Yet arguably of more enduring and fundamental importance was the Great Train Race between France and Germany throughout the nineteenth century. If European railways did not lead directly to war, they demonstrably increased the pace of international competition. Until midcentury at least, by exploiting the advantages of early industrialization, England remained the pioneer in rail travel. But, of course, English tracks had the singularity that they did not touch the Continent. Great Britain therefore became for the other nations a combination of myth and market, as well as a sometime supplier of coal and machines. After 1848, and especially after 1870, the focus of European rivalry centered on France and Germany.

Neither in the French nor the German case was a coherent strategy of railway construction foregone. Confusion east of the Rhine was an unavoidable consequence of political disunity. It is remarkable, in fact, how much uniformity was achieved in the German lands before 1870, given the complex patchwork of public and private administrations there 1. In France the story was different but not less disputatious. The centralizing aspirations of French state bureaucracy, led by the powerful corps of engineers at the prestigious Ecole des Ponts-et-Chaussées, was offset by a prevailing ethos of liberalism that boosted the claims of private initiative and regarded the railroad as a supreme test of laissez-faire principles. Beyond such lofty ideological considerations were practical questions of priority. Already in the early 1830s, while serving as Minister of Public Works, Adolphe Thiers contended that the great commercial prize of the century would be a link between the Atlantic and the Mediterranean. But shortly a competing conception appeared that came to be called the »Legrand star«, after the noted and well connected director of Ponts-et-Chaussées, Victor Legrand. In his view Paris would become the hub of a French and ultimately European network, with straight lines extending from the capital to the

1 From the vast general bibliography on German railways, one may select the following recent publications: Wolfgang Schivelbusch, Geschichte der Eisenbahnreise, Zur Industrialisierung von Raum und Zeit im 19. Jahrhundert, Frankfurt am Main 1979; Wolfgang Klee, Preussische Eisenbahngeschichte, Stuttgart 1982; Reinhard R. Fremdling, Eisenbahnen und deutsches Wirtschaftswachstum 1840–1879, 2<sup>nd</sup> ed. Dortmund 1985; Zug der Zeit – Zeit der Züge. Deutsche Eisenbahn 1835–1985, 2 vols. Berlin 1985; and Joachim Radkau, Technik in Deutschland vom 18. Jahrhundert bis zur Gegenwart, Frankfurt am Main 1989, pp. 133–148.

far corners of the country<sup>2</sup>. These two notions were tested in 1842, when the French parliament moved to adopt its first major legislation to found a national railway system. Once more Thiers pleaded the case for a primary commitment to a route from the English channel to the Mediterranean coast, noting that this priority would prevent the corresponding traffic from falling into the hands of Germany«. He also commented on the military utility of his proposal, which would enable French troops to move expeditiously anywhere from the Belgian frontier to Algeria. But most French politicians saw greater advantage in spreading the benefits of rapid transport more evenly, and the Thiers motion was defeated with a vote of 222–152. Thereupon, on 11 June 1842, the government's bill – in effect, a license for the Legrand star – was approved by a ballot of 255–83<sup>3</sup>.

This commotion actually belongs to the prehistory of Franco-German rivalry, which was still but dimly perceived. True, a series of disturbing reports from French diplomatic agents in Germany filtered back to Paris in the 1840s. They established a record of the obvious disadvantages of political decentralization on railway planning, but they also illustrated how local pride could be a spur to vigorous competition among the various German states. Accordingly, a report from Munich in 1847 by the most perceptive of French correspondents, the Comte de Bourgoing, registered some alarm about the rapidity of German building and suggested that the French were failing to keep pace. This was one of the motivating factors for a movement in France for nationalization of the private railway companies, which had dominated the first two decades of French expansion. But discussion of such a measure was suddenly interrupted by the June Days of 1848, and the matter was dropped for the time being <sup>4</sup>.

The two decades after mid-century can only be described in terms of a boom for Continental railroads. Political handicaps notwithstanding, hectic German construction continued as major thoroughfares were completed between Hamburg and Berlin, Bonn and Bingen, Frankfurt and Hanau, and elsewhere. Yet it was in France where economic prosperity and credit banking had their most evident effects. The characteristic French configuration of private companies and state regulations slowly took shape. Conventions were drafted between the government of the Second Empire and the six principal railway companies in 1859, which were augmented in

- 2 For an overview of the development of French railways, see Georges RIBEILL, Cent cinquante ans de chemins de fer français Paris 1982; Yves LECLERQ, Le réseau impossible: la résistance au système des grandes compagnies ferroviaires et la politique économique en France, 1820–1850 Geneva 1987; François CARON, L'évolution du régime français des chemins de fer: aux origines de l'économie mixte, in: Les chemins de fer, l'éspace et la société en France, Paris 1989, pp. 13–29; Etienne AUPHAN, Évolution du réseau et hierarchie des voies ferrées, Revue d'histoire des chemins de fer 2 (1990) pp. 21–45; and Cecil O. SMITH, Jr., The Longest Run: Public Engineers and Planning in France, in: The American Historical Review 95 (1990) pp. 657–692.
- 3 See the classic account of Alfred Picard, Les chemins de fer français, 6 vols. Paris 1884–1885, vol. 1, pp. 15–17, 96–104, 239–303 (Thiers is cited on p. 286). Also see the summary of Georges Lefranc, Les chemins de fer devant le Parlement 1833–42, in: Revue d'histoire moderne 5 (1930) pp. 337–364.
- 4 For example, Ferdinand de Cusey (French consul in Danzig) to Thiers, 7 Feb. 1840, Archives Nationales (hereafter AN), Paris F<sup>14</sup> 8602; E. Tippel (French consul in Stettin) to Thiers, 16 June 1840, ibid.; »Cinquième mémoire annuel sur les chemins de fer en Allemagne...«, 1845, ibid., 8597; Belurgey de Grandville (French vice-consul in Leipzig) to Guizot, 15 Feb. 1846, ibid.; Baron de Bourgoing (French legate in Munich) to Guizot, 8 Sept. 1847, ibid.

the 1860s. This cluster of agreements consolidated regional monopolies, thereby creating potential difficulties in the future but also hastening French construction without burdening the public treasury. In addition, Napoleon III's regime provided financial guarantees to private companies for building and operating secondary lines. The infrastructure of a national railway network began to emerge<sup>5</sup>.

All of which was accomplished, it should be observed, despite the application in France of strict specifications (cahiers de charge), enforced by Ponts-et-Chaussées, which drove up the expense of putting new lines into service. In this regard Germany lagged. Lacking uniform controls, the Germans tended to lay single rather than double tracks, and they were obliged to do so through vaster territories, serving a sparser population, and contending all the while with internal boundaries, irregular tariffs, and erratic regulations. A French report listed 62 separate railway administrations in Germany and Austria, including those of 18 different states. And yet, remarkably, as we must reiterate, German railway interests were successful in encouraging a certain regularity in such ultimately crucial issues as the gauge of tracks, the placement of signals, and the design of stations.

If there was an ominous note in these developments - as we can better see in retrospect - it was the growing prominence of the Prussian state. At the outset Prussia had intended to leave the railway business in private hands, but this resolution began to fray visibly after 1848, especially as the need arose to connect peripheral parts of the realm (notably East Prussia) to the rest. Moreover, the military implications of rails and telegraph lines grew ever more distinct. The French army consciously practiced rapid mobility by railway in transporting troops both in the Crimean War and the Italian war of the 1850s. A report in 1862 by one of the chief engineers of Ponts-et-Chaussées, Pierre Charié-Marsaines, documented how technological changes in transportation had »profoundly altered the conditions of the art of war«, and he prophetically warned that Germany was deriving the capability of »an offensive war against France«7. This admonition acquired its full implication with Prussia's swift victory over the Habsburg monarchy in 1866. Henceforth the definition of Germany would be otherwise than before. But the intensity of the Franco-German rivalry and the importance of the railway in promoting it could no longer be considered a novelty.

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From any standpoint, including railways, the war of 1870 was a total disaster for France. Hundreds of stories circulated about the slowness of French mobilization, the massive confusion between civil and military authorities, and the »deplorable

<sup>5</sup> See Louis GIRARD, La politique des travaux publics du Second Empire, Paris 1952; Rondo E. CAME-RON, France and the Economic Development of Europe, 1800–1914, Princeton 1961, pp. 204–247; and François CARON, Histoire de l'exploitation d'un grand réseau: la Compagnie du chemin de fer du Nord, 1846–1937, Paris 1973.

<sup>6</sup> PICARD (see n. 3) vol. 2 pp. 352-353; A. AUDIGANNE, Les chemins de fer aujourd'hui et dans cent ans chez tous les peuples, 2 vols. Paris 1858-1862, vol. 2 p. 174-180; CARON (see n. 5) pp. 135-139 and SMITH (see n. 2) pp. 677-680.

<sup>7</sup> Pierre Charié-Marsaines, Les chemins de fer considérés au point de vue militaire, Paris 1862, pp. 6-13, 23.

scenes of disorder« in staging areas and rail terminals near the German frontier8. Not surprisingly, then, the opening phase of the Third Republic was marked by a resurgent impetus to nationalize the French railway companies: the so-called rachat. Although this term was technically a misnomer (because the companies held only »concessions«, that is, a lease from the state), it aptly described the real issue. Did the new French government literally wish to indemnify private investors and pump millions into the railway industry, thereby assuming full responsibility for the ownership and operation of a huge state enterprise? Léon Gambetta was not least among those to advocate just such a policy. But his political support was fragile, and he was countered both by big business and by liberal convictions. Notable among the opposition to nationalization were President Thier's chief financial advisor, the Norman manufacturer Auguste Pouyer-Quertier, and one of the leading railway authorities of the day, François Jacqmin, who became director and defender of the reconstituted Compagnie de l'Est. In truth, it was an uneven and consequently brief political struggle that could only end with a reaffirmation of private ownership. Nothing could have been more out of character for the early Third Republic, after all, than a dynamic initiative for state interventionism9.

In this perspective we can best grasp the essence of the famous Freycinet Plan of the late 1870s. Despite the appearance of a bold state undertaking, it was in actuality a surrogate for one. If there were to be no nationalization, in other words, what was France to attempt instead? The answer provided by Charles de Freycinet had several components: 1) spend large sums to subsidize the construction of ancillary railways; 2) designate a réseau d'intérêt général of nearly 8000 kilometers that would serve as a covert network of military connections; and 3) create new bureaucratic agencies, such as the Comité Consultatif des Chemins de Fer, that would more closely monitor the operation and standardization of railway technology under the private companies. The Freycinet Plan thus meant greater state involvement but not decisive state intervention 10.

The Plan masked another reality. Its extraordinary statistical spurt, which

8 Baron Ernouf, Histoire des chemins de fer français pendant la guerre franco-prussienne, Paris 1874, pp. 4–6. See Michael Howard, The Franco-Prussian War, New York 1962; Richard Holmes, The Road to Sedan: The French Army, 1866–70, London 1984; Thomas J. Adriance, The Last Gaiter Button: A Study of the Mobilization and Concentration of the French Army in the War of 1870, Westport, Conn. 1985; and Allan Mitchell, Victors and Vanquished: The German Influence on Army and Church in France after 1870, Chapel Hill 1984, pp. 60–64.

9 François Jacqmin, Réponse de la Compagnie des chemins de fer de l'Est au questionnaire de la Commission d'enquête administrative sur les chemins de fer, Paris 1870; L.-L. Vauthier, Projet de loi de rachat et de reorganisation, Paris 1874; Auguste Chérot, Du rachat général des chemins de fer et d'une organisation régionale du réseau français, Paris 1875; and Picard (see n. 3) vol. 3 pp. 36-37. See Gabriel L. Jarray, La question de rachat et la gestion financière des chemins de fer de l'état français, in:

Annales des sciences politiques 17 (1902) pp. 683-708.

10 Charles de Freycinet, »Projet de loi«, in: Journal Officiel: Chambre des Députés, 12 Jan. 1878; Discours prononcé par M. de Freycinet, Ministre des travaux publics, à la Chambre des Députés le 14 mars 1878, Paris 1878; Discours prononcé par M. C. de Freycinet, Ministre de travaux publics, au Sénat le 11 juillet 1879; and L. L. VAUTHIER, Le programme de M. de Freycinet, Paris 1879. See Yasuo Gonjo, Le Plan Freycinet, 1878–1882: un aspect de la grande dépression économique en France, in: Revue historique 128 (1972) pp. 49–86; Allan MITCHELL, The German Influence in France after 1870: The Formation of the French Republic, Chapel Hill 1979, pp. 190–193; and SMITH (see n. 2) pp. 681–683.

abruptly ceased after the French stock market broke in 1882, was untypical of a general phenomenon: the tempo of French railway construction was tending to decline after 187011. Not so in the newly united German Kaiserreich, which measured in sheer kilometrage was steadily attaining the status of Europe's greatest railway power before 1914. Germany, too, experienced a nationalization debate after 1870. There was much discussion of Bismarck's proposal for a Reichseisenbahn that would span the country from Frankfurt to Danzig and Hamburg to Munich. But the combined interests of particularism (state's rights) and private concerns were persistent 12. Still, the outcome in Germany differed from that in France in two important regards. First, the Prussian state, which covered more than half of the national territory and represented nearly two-thirds of the national population, became a major player in railway ownership and operation by purchasing and directly administering virtually all of the lines north of the Main river. Second, yielding to this immense Prussian weight, the already well established Verein Deutscher Eisenbahn-Verwaltungen (which included both the Netherlands and Austria-Hungary) progressed much further than France in encouraging and controlling uniform technical standards. If total nationalization remained an elusive goal before 1914, Germany nevertheless approached, in railways as in other respects, a working model of etatist efficiency 13.

The clearest instance of international competition in these years was provided by transalpine tunnels. Mont-Cenis was the first of importance. Over 13 kilometers in length, placed into full operation in the early 1870s, it linked Italy to southeastern France. As an extension of the recently completed Suez canal, in effect, it favored the port of Genoa over Marseille; but it had the advantage, from a Gallic point of view, of directing Mediterranean-Atlantic traffic to a long trajectory on French tracks. No sooner had France begun to reap benefits from this marvel, however, than the Germans, Swiss, and Italians started negotiations for another subterranean conduit through the Alps via St. Gotthard. Construction of this tunnel was begun in 1879 and completed by 1882. Its opening had an immediate and traumatic impact on European trade. The shortest connection between Milan and London was now displaced farther eastward, and many freight shipments were diverted from southern French lines to the Rhine corridor. As one knowledgeable French commentator remarked: "The relative situations of France and Germany vis-à-vis Italy have thus entirely changed".

- 11 The annual average of new track constructed in France for the period 1854–1867 was 833 kilometers; 1868–1879: 587 kilometers; 1880–1885: 1128 kilometers; 1886–1892: 666 kilometers; 1893–1906: 322 kilometers. François Caron, France, in: Patrick O'Brien (ed.) Railways and the Economic Development of Western Europe 1830–1914, Oxford 1983, pp. 28–48 (statistics on p. 34).
- 12 For instance, Max Maria von Weber, Bemerkungen zum vorläufigen Entwurf eines (deutschen) Reichs-Eisenbahngesetzes, Leipzig 1875; Wolfgang Eras, Das Reichsbahn-Projekt, seine Entstehung und seine Gefahren, Breslau 1876; J. Neumann and E. Freystadt (eds.), Reichseisenbahnen! Materialien zur Beurtheilung der Deutschen Eisenbahnfrage, Berlin 1876; A. von der Leyen, Die Eisenbahnpolitik des Fürsten Bismarck, Berlin 1914; and Hermann Kirchhoff, Der Bismarcksche Reichseisenbahngedanke, Stuttgart 1916.
- 13 In this respect Germany and France were compared from abroad by James Hole, National Railways: An Argument for State Purchase, London 1893, pp. 253–265, 278; and Simon Sterne, The Relation of the Railroads to the State, Philadelphia 1896, pp. 5–9. See Klee (see n. 1) pp. 157–178.
- 14 Statement by M. Lesguillier, 9 March 1883, in: La question des chemins de fer, Procès-verbaux des séances du Comité des députés et du Comité des conseillers généraux, Paris 1883, pp. 29-30. See

It is in this context that one can readily comprehend the significance of the two international railway conferences that convened during the 1880s in the Swiss capital of Bern. Although the extant records of the meetings are very detailed and complex, they may be distilled into a single basic issue: was German to impose its technological standards on France? The Germans at once seized the initiative in 1882 by proposing a »norm« for the gauge of all Continental railway tracks in conformity with regulations already adopted by the Verein Deutscher Eisenbahn-Verwaltungen. France refused to sign such an agreement on grounds that a somewhat broader gauge had been adopted by the private French companies, that it would be prohibitively expensive to alter it, and that most rolling stock could in any event pass safely from one existing national network to another 15. An intricate technical debate ensued among French railway owners and engineers. Although a number of the latter argued that France could and should adjust to the German standard in order to facilitate international trade, the companies vociferously objected to the imposition of strict regulations and added expenses by the state 16. This altercation, in turn, produced an acrimonious political dispute. A parliamentary report by the French deputy Richard Waddington accused the quarrelsome Republic of falling technologically out of step and of dropping commercially behind. Georges Clemenceau contended, furthermore, that the French nation was thereby incurring a dangerous military retardation as well 17.

At the second Bern conference in 1886 French isolation was nearly complete. Previously hesitant to take sides, Italy had meanwhile moved closer to the specifications of its German ally, as the highly profitable St. Gotthard connection now dictated. A compromise motion by Switzerland, allowing for a tolerance of 30 millimeters between the minimum and maximum gauge, enabled the French to save face 18. Yet even as the technological issue thereafter receded, the impression of French eccentricity remained. That image was reconfirmed by the Boulanger episode, which climaxed in one of Europe's periodic war scares in 1889. The growing international tension of this time was reflected in a kind of public paranoia about espionage (especially regarding bridges, tunnels, and other railway installations) that soon erupted in the Dreyfus Affair 19. These were the circumstances under which

A. Memminger, Die Alpenbahnen und deren Bedeutung für Deutschland und Oesterreich, Zürich 1878; M. Manner, Geschichte des Baues der Gotthardbahn, Bern 1885; and Pierre Weil, Les chemins de fer, Paris 1964, pp. 100–110.

- 15 Procès-verbaux des déliberations de la conférence internationale pour l'unité technique des chemins de fer, Bern 1882. See the report by the French delegate, Luuyt, to the Ministry of Public Works, 31 Oct. 1882, AN Paris, F<sup>14</sup> 1288; and the lengthy summary prepared for the Comité d'exploitation technique des chemins de fer (hereafter CETCF) by Worms de Romilly, 23 Jan. 1883, ibid.
- 16 These reports are to be found among the papers of the French Ministry of Public Works from January to April 1883, ibid.
- 17 »Rapport de M. Richard Waddington, député, sur les tarifs«, in: PICARD (see n. 3) vol. 5 pp. 199-234. For Clemenceau's remarks, ibid., vol. 6 pp. 201-204.
- 18 Procès-verbaux de la seconde conférence internationale pour l'unité technique des voies ferrées, Bern 1886.
- 19 For example, Freycinet to the Ministry of the Interior (sûreté générale), 30 Nov. 1891, AN Paris, F<sup>14</sup> 12350; and Yves Guyot (Minister of Public Works), memo to French engineers-in-chief, 16 Feb. 1892, ibid. See Allan Mitchell, The Xenophobic Style: French Counterespionage and the Emergence of the Dreyfus Afair, in: Journal of Modern History 52 (1980) pp. 414–425.

republican France and tsarist Russia reached agreement on a military entente in 1893. Manifestly, the Franco-German rivalry was beginning to assume a pattern of open enmity and potential conflict.

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Apprehension about the growing military and economic weight of imperial Germany before 1914 has long been one of the commonplaces of European history. We therefore need not dwell on the already well-researched diplomatic details of the prewar period but may concentrate here on three symptomatic developments during those years, each of which brought the railway rivalry between France and Germany into sharper focus.

The first was a project to pierce another major transalpine tunnel: the Simplon. Discussion of this possibility had begun soon after the first commercial results of the St. Gotthard rail connection became evident. But the steep grades and rugged terrain of the chosen site created formidable technical obstacles and promised to inflate the cost of construction. Building finally began in 1898. After repeated delays, a single gallery was opened in 1906 (the other was not completed until 1922). Nearly 20 kilometers in length, the longest underground passage in Europe, the Simplon was doubtless a remarkable engineering achievement. Its main advantage could be precisely measured: railway trade between Milan and Paris required 924 kilometers via Mont-Cenis, 897 via St. Gotthard, but only 847 via Simplon. Two bothersome problems remained, however: one technical and one political. Full use of the Simplon route would not be possible until adequate access lines were added, thus necessitating a recasting of schedules and traffic patterns for freight. In addition, such redirection was certain to arouse jealousy among the private French companies, some of which would lose traffic while others gained. For these various reasons the uncompleted Simplon tunnel had little actual effect on European commerce before 1914, although its unmistakably intended escalation of the trade war did exacerbate both domestic and international rivalries among railway operators 20.

A second object of contention was the so-called »Alsatian balloon« (Ballon d'Alsace). Heretofore only two major rail lines joined newly annexed German Alsace with central France: Mulhouse-Belfort and, much farther north, Strasbourg-Nancy. Between them ran the blue ridge of the Vosges mountains, still unpenetrated by east-west railroads. Merchants and local industrialists on both sides ardently wished one or more new connections, and an active lobby – plainly called the Franco-German Commercial Committee – was established with offices in Paris and Berlin. It set about to gather public and parliamentary support in the two countries. Unfortunately for the Committee, French military planners had different ideas. For them, none of the nine available options (widely publicized by a postcard map) was acceptable because any of them might provide an invading German army with rapid access to the fortress of Epinal and render its defense far more tenuous. Instead, a tenth possibility was proposed that would provide a more direct link between Epinal and Belfort. This new tunnel route would bring a double advantage: it would pass entirely through French soil, thus maintaining the natural barrier of the Vosges; and it would

eventually maximize the Simplon itinerary (once two further tunnel projects in Switzerland were operative), thereby attracting a substantial portion of London-Milan traffic in the bargain. Again, this controversy led to heated recriminations within and between nations. In the end, these conflicting interests tended to cancel each other out, resulting in the worst possible scenario of political gridlock and embittered feelings. Competition again prevailed over cooperation, and another unresolved issue was thus added to the already lengthy prewar agenda of frustrations<sup>21</sup>.

A third problem was partially hidden from public view but was not unknown among railway experts in France an Germany. The uncomfortable truth was that, after collapse of the Freycinet Plan in the early 1880s, the French economy suffered nearly three decades of lethargy, especially compared with Germany. When an improvement did occur after 1900, therefore, it rested on a relatively narrow industrial base. In some sectors commercial orders began to outstrip productive capacity. Among these, distressingly, was the construction of steam locomotives. Records of the Comité de l'exploitation technique des chemins de fer (CETCF) in the Ministry of Public Works show conclusively that, from the turn of the century, France imported fully one-third of its railway engines form Germany. It was obliged to do so, as one member of the committee conceded, »in view of the weak production of French industry and the necessities of current trade«22. When the government objected that such purchases abroad were only reinforcing Germany's economic dominance of the continent, French railway spokesmen responded that the companies were private concerns whose first responsibility was to their investors and to the industries in their region. German factories were bringing 1500 new locomotives annually into service, far more than the domestic demands of their country. They were consequently able to offer excellent machines at reasonable prices to French companies, which were pressed by the imperatives of an expanding market to acquire more engines. French production was meanwhile only 450 locomotives in 1909, 350 in 1910, and barely 500 ind 1911. Charges of German »dumping« were hence gratuitous, another CETCF member observed, because »it is neither possible nor desirable to forbid [French] companies from turning abroad«23. This defense of private enterprise brought angry retorts from those who vibrated the chord of patriotism and argued for the higher interests of the nation. Why did Germany encourage its constructors to sell locomotives in France at extraordinarily favorable prices? »The objective is obvious«, one committeeman remarked in answer to his own question: »It is to harm the development of French industry, to prevent it ...

<sup>21</sup> For documents and a detailed chronology, see Lucien Croquet (ed.), Der Vogesenstich: Generalbericht, Berlin and Paris 1909–1911. The French view of this altercation is made clear in such reports as \*La percée des Vosges: compte rendu de la réunion du 26 avril 1909«, AN Paris, F<sup>14</sup> 12680; and \*Percement du Ballon d'Alsace: Note pour Monsieur le Chef du Cabinet«, 31 Oct. 1912, ibid. The perspective of the German government was meanwhile summarized by the Prussian Minister of Public Works, Breitenbach, to the Ministry of the Interior, 3 Sept. 1910, Militärarchiv Potsdam, Pr 3.2.16.1.3./9. See Ivan Imbert, Percée du Ballon d'Alsace, Epinal 1912.

<sup>22</sup> Statement by committeeman Salomon in CETCF, procès-verbaux, 7 Feb. 1907, AN Paris, F<sup>14</sup> 12378. This issue had already touched off a brief polemical flurry in the newspaper press: Locomotives allemandes en France, Le Matin, 7 Jan. 1902; and Locomotives étrangères, ibid. 9 Jan. 1902.

<sup>23</sup> Statements by committeeman Le Châtelier in CETCF, procès-verbaux, 2 March and 22 June 1911, AN Paris, F<sup>14</sup> 12378.

from organizing in a normal and rational manner, thereby to paralyze it and to eliminate it from foreign markets«24.

This selective but indicative evidence should be sufficient to suggest how and why the Franco-German rivalry remained basic to the constellation of European powers in the prewar era. Militarily and economically diminished after 1870, the French republic found good reason to fear the burgeoning might of the German empire. However it was measured – by tunnels or tracks, by railway engines or raw materials, by technological progress or troop strength – German vitality threatened to overwhelm the opposition. Little wonder that the French regarded Germany as the mortal enemy, that they welcomed military ententes with Russia and England, and that they braced for an invasion that they expected to arrive, sooner or later, by rail.