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Introduction and Overview

Contradictory as it sounds, in the era of the world wars, Degussa was a rather little big business. Only its lengthy formal name was imposing: the German Gold and Silver Separation Institute, Inc., formerly Roessler (AG Deutsche Gold- und Silber- Scheideanstalt vormals Roessler – it did not begin going by the acronym Degussa until 1943, as a time-saving measure for typists, and did not adopt the abbreviated name officially until 1980).¹ None of even the firm's largest productive installations – those in and around the headquarters city of Frankfurt, at Rheinfelden by the Swiss border, and at Grünau and, after 1933, at Oranienburg, both near Berlin – remotely approached the size of the main works of such industrial giants as IG Farben, United Steelworks, Krupp, and Siemens. Indeed, Degussa's highest *total* labor force prior to 1945 (approximately 30,000 people, including those employed at majority-owned subsidiaries) never exceeded that at several of these corporations' mammoth production sites.² Neither was its stock capitalization especially impressive – at 23 million marks in 1927, it came to a fraction of that invested in any of these enterprises or in such other well-known firms as Mannesmann and AEG. By this measure, in fact, Degussa ranked only sixty-fourth out of the

¹ On the use of the acronym, DUA, DL 2/1, Niederschrift über die ausserordentliche Besprechung des Vorstandes am 26. Januar 1943, Anlage I: Scherf's Notiz für Herrn Schlosser. Betr.: Firmenkurzbezeichnung "Degussa," January 19, 1943; on the official adoption of the name, with the suffix AG, see Mechthild Wolf, *Im Zeichen von Sonne und Mond* (Frankfurt am Main: Degussa AG, 1993), p. 46.

² Interestingly, Degussa does not appear on a recent set of listings of the 100 largest German corporations, as measured by the size of their domestic workforces, for the years 1907 and 1938 and ranks only eighty-fifth in 1973 and sixty-eighth in 1995; see Martin Fiedler, "Die 100 grössten Unternehmen in Deutschland – nach der Zahl ihrer Beschäftigten – 1907, 1938, 1973 und 1995," *Zeitschrift für Unternehmensgeschichte* 44 (1999), pp. 32–66, and "Die 100 grössten Unternehmen von 1938 – ein Nachtrag," pp. 235–42. Though Fiedler almost certainly has undercounted Degussa's workforce for 1938, his figures for most firms are minimum estimates, so there is no reason to challenge the exclusion of the firm from the list for that year.

100 largest German industrial entities in that year and tenth among the thirteen chemicals firms on the list.³

While the firm improved somewhat upon this relative standing during the ensuing two decades, partly through expansion and partly because of the blows events dealt to competitors, Degussa's visibility on the German industrial landscape hardly increased. Certainly the company name was no closer to being a household word in Germany in 1947 than it had been twenty years earlier. Moreover, the firm's administrative apparatus remained strikingly personal and undeveloped. A chairman of the managing board was first named in 1930; regular meetings of that body did not commence until 1938. Even after a modern, divisional, and somewhat bureaucratized management structure began to take shape during World War II, the enterprise continued to be run by a handful of key figures, largely by the exchange of phone calls and memoranda. In short, the Degussa of this book was a far cry from the far-flung multinational that bore that name in the second half of the twentieth century, let alone the one that, following the mergers of 2000, carries that name forward into the twenty-first from a new administrative center in Düsseldorf.

Yet, this inconspicuous and intimate entity left its fingerprints on many of the most dramatic – and, in some cases, criminal – aspects of German history between 1933 and 1945. Much of the gold and silver extorted from Europe's Jews or ripped from their corpses passed through Degussa's refineries, as did some of the far larger quantities of precious metals plundered from the treasuries and citizenries of occupied Europe. Not only was the gold indispensable as a means of paying for the import of vital war materials from Portugal and through Switzerland, but also the silver almost literally gave eyes to the Luftwaffe, since much of it was sold to manufacturers of photographic film. Germany's warplanes also depended on Degussa's cyanide output for the Plexiglas that girded their cockpits, on Degussa's sodium for the tetraethyl lead in their fuel, and on Degussa's rare metal alloys for some of their propellers and engine parts. Later, Degussa's hydrogen peroxide helped propel German torpedoes and U-boats, the V-rockets that Hitler launched against England, and the jets that he hoped would turn the tide of the war. On the ground, German troops rode on tires made with Degussa's carbon black, carried gas masks turned out by Degussa's Auergeellschaft subsidiary, deployed equipment fabricated from Degussa-hardened steel, and fired anti-aircraft shells that contained explosives from Degussa-managed installations. The Zyklon B used to asphyxiate some one million people at Auschwitz and Majdanek was a Degussa product. Had Germany developed a genuine research project for an atomic bomb, Degussa, as the

³ For the comparative data, see Hannes Siegrist, "Deutsche Grossunternehmen vom späten 19. Jahrhundert bis zur Weimarer Republik," *Geschichte und Gesellschaft* 6 (1980), Anhang II, especially p. 97.

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nation's principal producer of uranium and other radioactive metals, surely would have played an essential part in it.

That so modest a firm came to be found in so many places at once in the Third Reich – to exercise an importance to the economy, the war effort, and the Holocaust out of all proportion to its size – attests to the particular growth process that had given Degussa its heterogenous form and Degussa's managers their distinct strategic bent by the time Adolf Hitler became Chancellor of Germany on January 30, 1933.⁴ Founded sixty years earlier almost to the day, the Scheideanstalt, as it was generally known, was always an exploiter of niches. The firm's precursor, a smeltery for precious metals leased by Friedrich Ernst Roessler from the Free City of Frankfurt, owed its very existence to one such opening, that created by the city's interest in carrying out the resolve of the South German states to standardize their coinages following the German Customs Union of 1834. After establishing its reputation during this currency conversion and adding a laboratory to produce metallic chemicals such as silver nitrate and potassium cyanide, Roessler's little operation was strong enough to make the transition to a flourishing private partnership of his sons, Hector and Heinrich, following the annexation of Frankfurt by Prussia in 1866. Five years later, the unification of Germany offered their company the chance to execute another, even larger monetary transformation, provided adequate financial backing could be found. The incorporation of the enterprise in 1873 satisfied that precondition (while reducing the founding family's holding to 26 percent) and thus secured for the Scheideanstalt a lucrative share of the Reich's business until the reminting process was completed in 1878/79. By then, two other Roessler brothers had opened affiliates in Berlin and Vienna, and Hector and Heinrich, who continued to direct the firm, faced the challenge of finding a replacement for the fulfilled government contracts.

The opportunities Degussa pursued at this juncture set the firm on three separate, though sometimes overlapping, paths of development for most of the period examined in this book. Not surprisingly, immediate salvation came from perfecting and monopolizing a substance closely related to the

⁴ In general, my summary of Degussa's history rests on Wolf, *Im Zeichen von Sonne und Mond*; idem., *Von Frankfurt in die Welt* (Frankfurt am Main: Degussa, 1983–87), a boxed set of essays on the firm's history at particular key dates; and on DUA: D 2/3, *Die Entwicklung der Deutschen Gold- und Silberscheideanstalt vormals Roessler*, by Dr. Martin, January 9, 1946; D 2/19, *Development and Structure of Degussa*, no date; GCH 5/37, U.S. Office of the Military Government of Germany, Division of Investigation of Cartels and External Assets, *Partial Report on Examination of External Assets and Activities of Deutsche Gold und Silber Scheideanstalt* (Degussa), no date; TLE 1/23, *Der Aufbau des Produktionsprogrammes der Degussa*, undated [1945–48?] and unsigned; and BU Fritz Roessler, "Zur Geschichte der Scheideanstalt," a remarkable memoir-history written in stages between 1925 and 1937, while the author was chairman of Degussa's supervisory board. I have refrained from citing these sources again below except for specific quotations or statistics.

precious metals processing that remained Degussa's mainstay. This was liquid gold suitable for application to porcelain and enamel. Enormously profitable in the era of Victorian decoration, the innovation led to the founding of a virtually wholly owned American subsidiary, Roessler & Hasslacher, in 1885 and provided much of the capital for further growth in refining gold-bearing silver, lead, and copper ores, out of which came investments, in partnership with the Metallgesellschaft of Frankfurt, in a Belgian plant at Hoboken in 1887 and in the Norddeutsche Affinerie of Hamburg just prior to World War I. A related trend was the firm's increasing engagement in semi-manufactured goods, especially alloys, for the jewelry and dental trades, which entailed the extension of Degussa's precious metals palette to platinum through investment in the G. Siebert firm of Hanau in 1905. But liquid gold also drew Degussa into the fabrication of ceramic dyes, earthenware, and firing ovens, thus beginning the diffusion of the enterprise's activities beyond its traditional base.

Similarly, the second major line of development of the 1880s also pulled Degussa in new directions. Inaugurated by the election of two commercial specialists from outside the Roessler family to the managing board, this consisted of offering the enterprise's services as a sales representative to numerous specialized chemicals manufacturers. As a result, by the 1890s, Degussa was earning profitable commissions not only by speaking for the German participants in numerous international cartels, including those for various acids, cyanides, and quinine, but also by coordinating sales and distribution for many smaller firms. Among these were the two major German makers of charcoal and other wood-based products (e.g., acetic acid, acetone, creosote, methanol, and formaldehyde, which were essential to such diverse products as vinegar, resins and plastics, dyes, solvents, heavy ammunition, and metal alloys and coatings): the Verein für Chemische Industrie and the Holzverkohlungs-Industrie AG (HIAG), the latter of which Degussa helped found in 1902. In conjunction with assorted joint production agreements between the Verein and Roessler & Hasslacher, these arrangements marked Degussa's entree to the sphere of organic chemicals.

The third main line of development, Degussa's own inorganic chemicals manufacturing, remained limited during the 1880s to sodium and potassium cyanides. It was thereafter pushed outward, however, in a fashion typical of the chemical industry, by the quest to cut outlays for raw materials or to find new applications for existing output and byproducts in order to lower unit costs and reduce waste. Thus, once an American plant founded by the [British] Aluminium Company and Roessler & Hasslacher had demonstrated the cost-saving benefits of using hydroelectric power to make sodium, Degussa entered a partnership with the British firm in 1898 to build a comparable German facility at Rheinfelden. Within a decade, the resulting output was serving as the feedstock for not only sodium cyanide, but also sodium peroxide for bleaching and sodium amide as a condensation agent in the

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production of indigo dye. Most consequentially, the research of a talented young Degussa chemist named Otto Liebknecht, son and brother of the famed Social Democrats Wilhelm and Karl, bred a patent on a process for making sodium perborate, which soon became the active ingredient in the Henkel Company's phenomenally successful detergent, Persil.⁵ Along with expanded output came increased ties to firms that used these products, provided intermediates for them, or arrived at them by other means. The results were joint manufacturing ventures with Hoechst AG (indigo), the Chemische Fabrik Weissenstein in Austria (hydrogen peroxide), the Chemische Fabrik Landshoff & Meyer of Grünau (electrolytic fabrication of perborate), and the Dessauer Werke für Zucker und chemische Industrie (hydrogen cyanide from sugar beet plants).

On the eve of the First World War, these semi-diversified operations enabled Degussa to pay regular annual dividends of 30 to 50 percent of nominal capital to its stockholders, but the corporation had neither broken into the ranks of the nation's 100 largest firms nor acquired what today is called name recognition. The latter circumstance changed little during the Weimar and Nazi years, since Degussa largely remained a purveyor of goods and services to other firms not the consumer market. The enterprise's relative standing, however, rose appreciably after 1918, despite the fact that neither the war nor the peace settlement positioned Degussa well for the future. Hector and Heinrich Roessler had retired from the active management in 1901, and though the latter man remained involved in the firm as a member of the supervisory board, his main preoccupations were now idealistic and political: fostering the League for International Understanding and uniting Germany's liberal factions into the Progressive People's Party. Because Alexander Schneider, the headstrong director who became dominant in the Roesslers' absence, had to make good just before the war broke out on one of his periodic threats to resign, another director left with him, a third showed signs of derangement, a fourth died, and two more were called to the colors, leadership of the enterprise fell in 1914 to Heinrich's well-intentioned but halfhearted son, Friedrich (Fritz), a patrician in most of the noble and negative senses of that word.⁶ He saw to it that the firm's few suitable capacities were put to the service of the military effort and that the workforce's attachment to the enterprise, which decades earlier had pioneered insurance and bonus programs and the eight-hour day, remained strong. Otherwise, however, he functioned largely as a caretaker, provoking his successor to

⁵ On Liebknecht (1876–1949) and his career with the firm from 1900 to 1925, see Birgit Bertsch-Frank, "Eine etwas ungewöhnliche Karriere. Otto Liebknecht," in Mechthild Wolf (ed.), *Immer eine Idee besser: Forscher und Erfinder der Degussa* (Frankfurt am Main: Degussa AG, 1998), pp. 54–75.

⁶ See Peter Hayes, "Fritz Roessler and Nazism: The Observations of a German Industrialist, 1930–37," *Central European History* 20 (1987), especially pp. 61–64.

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0521782279 - From Cooperation to Complicity: Degussa in the Third Reich

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1 Fritz Roessler

lament that Degussa “had slept through the war years” and missed the opportunity for expansion that they offered.⁷ When they ended adversely for Germany, moreover, the firm was stripped of its lucrative American subsidiary, Roessler & Hasslacher, along with the Hoboken plant and all other foreign shareholdings and patent rights, aside from those in Austria and Hungary. That Degussa retained full title to the Rheinfelden factory – the Reich having seized and sold the British shares at auction in 1918 – seemed small compensation. In 1922, the enterprise’s profits came, in real terms, to only one-tenth of their prewar level. The revaluation of Degussa’s assets following the collapse of the German currency a year later produced a figure of 25.3 million gold marks, only 43 percent of the total in 1913.⁸

Degussa’s remarkable recovery from these losses during the 1920s was due, in part, to the fortuitous extensions of its cyanide operations associated with the names Degesch and Durferrit. Another acronym, Degesch stood for the company name Deutsche Gesellschaft für Schädlingsbekämpfung mbH (German Society for Pest Control, Ltd.). The firm was the successor to the War Ministry’s Technical Committee for Pest Control headed by Fritz Haber,

⁷ Roessler recorded the reproach in his “Zur Geschichte” [1925], Abschrift, p. 35, adding in his own defense that “this hard judgment was delivered without knowledge or consideration of the personal and objective circumstances,” p. 36.

⁸ On the profits, Wolf, *Im Zeichen von Sonne und Mond*, p. 134; on the balance sheet assets, Heinz Mayer-Wegelin, *Aller Anfang ist Schwer* (Frankfurt am Main: Degussa AG, 1973), p. 167.

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which had concentrated on methods of killing lice in trenches, barracks, and submarines. Having been transformed in 1920 into a corporation owned by a consortium of chemical firms, Degesch became Degussa's exclusive property in 1922, the same year that Walter Heerdt, the firm's business manager, perfected a process for packing the volatile hydrogen cyanide in its principal product, a fumigant called Zyklon, in tins filled with absorbent pellets. These stabilized the chemical until the cans were opened, at which point the contents vaporized and blocked the transfer of oxygen to any organism in the vicinity. Known in-house as Zyklon B, the new commodity amounted to a major technological breakthrough and enjoyed immediate success, though more as a source of license fees than direct sales revenue, given the limited demand for it within Germany at the time. Duferrit was a trade name, acquired in 1925, for a process of hardening carbon-poor steel through fixing a powder to the metal's surface. Degussa soon eclipsed this procedure by modifying an American method that involved dipping the metal in a bath of sodium cyanide and charcoal, to which the trade name was also applied. Once more, the licensing of the process, including rights to make the necessary chemical compounds and hardening ovens, began to bring in new and appreciable revenues. Within just over a decade after Germany's defeat, therefore, two new lines of business – pesticides and metal strengtheners – arose to offset some of the damage done to Degussa's fortunes. Moreover, another technical advance was taken over from the now independent Roessler & Hasslachner in this period, the Downs Process for the electrolytic manufacture of sodium, which considerably reduced production costs for this staple. A new installation, built at Knapsack near Cologne in partnership with the American firm, became Degussa's sole property in 1930, as its former U.S. subsidiary disappeared into DuPont.

More important than new technologies to Degussa's postwar revival, however, were the revenue stream provided by perborate sales to Henkel and the ascent of new leadership. Indeed, earnings on perborate remained the lifeblood of the enterprise until well into the Nazi years, and the management team put together following the First World War largely determined the firm's course until well after the Second (for a list of Degussa's board members from 1933 to 1945 and the dates of their terms, see Appendix A). Most of the key figures in that team were competent, steady, and reliable directors of their special spheres, but disinclined to assert themselves beyond them. Three of them, in fact, largely owed their positions to family connections, attesting to how ingrown the enterprise still was. Hans Schneider, the head of Degussa's still profitable but stagnant precious metals sector until early 1941, had his father to thank for his appointments as deputy, then full member of the managing board – indeed, his promotion was negotiated as part of the elder Schneider's severance package when he abruptly resigned from that body in 1913. Hektor Roessler, who was elected in 1921 and handled personnel matters until they drove him to suicide twenty years later, belonged to the founding family. So did his cousin Ernst Baerwind, whose mother was

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2 Ernst Baerwind

a Roessler. Trained in chemistry at Munich and Berlin, Baerwind worked at Rheinfelden between 1914 and 1919, aside from a brief period of military service that cost him the sight in one eye, then joined the central administration in Frankfurt and assumed a seat on the managing board in 1926 with responsibility for production at the chemicals and metals plants. He acquitted himself of these responsibilities with literally painstaking devotion and attention to detail, but also with a certain aloofness, all of which qualities attested to his enduring self-doubt. Never convinced that he had risen by virtue of his merits rather than his relatives, always inclined to melancholy, and, after 1933, made still more uncertain because his father's mother had been born a Jew, Baerwind proved the ideal operations man but did not presume to make overall corporate policy. Ernst Bernau also largely tended to his own bailiwick – accounting, taxes, and finance – but he was considerably more assured and urbane than Baerwind. Having been with the firm since 1896, he took charge of Degussa's bookkeeping from 1919 on, though he reached the managing board later than all the other new men, as a deputy member in 1930, then a full one from 1933.

This cohort, including Schneider's assistant and successor, Robert Hirtes, provided Degussa with stable and dependable management virtually throughout the Weimar and Nazi eras, but real direction came from two more galvanic figures: Ernst Busemann and Hermann Schlosser. Forty-three years old in 1919, when he assumed the seat he had been offered three years earlier on Degussa's managing board, Busemann had a doctorate in law,

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3 Ernst Bernau

training in finance at a Jewish-owned private bank, and a record of managerial success as head of both the Hoboken unit prior to the war and the War Metals Corporation in Berlin during it. He was sharp, decisive, sure of his own judgment, adept at maneuver and negotiation, and, from the beginning of his tenure, intent on establishing his primacy. He succeeded.



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5 Hermann Schlosser

By 1923, he had driven Fritz Roessler into the honorific role of supervisory board chairman and emerged as first among equals on the managing board. In 1930, he became its first chairman, which he remained until his death in 1939. The confident and convivial Schlosser was fourteen years younger, a Protestant pastor's son with a talent for English and for negotiating with those who spoke it, which derived from a four-year stint in British India at the beginning of his career. This aptitude served him in good stead as he, fresh from frontline service, sought to rebuild Degussa's export trade from his initial postwar posting in Holland, then, following his elevation to the managing board in 1926, became the enterprise's preferred representative abroad during his climb to the status of Busemann's undisputed successor.

Whereas Busemann carried the stamp of the Imperial educated bourgeoisie in his tastes and bearing – he wore a goatee and a homburg, played piano well and loved music, particularly Bach, admired accomplishment but scorned self-promotion or self-importance, and was more interested in private and professional fulfillment than politics – Schlosser's formative experiences were his regimental duty during World War I and his upbringing in a home that taught patriotism, social obligation, and the dangers of ostentation or pride. As a result, he combined a firm sense of his own worth with a calculatedly modest and accessible demeanor, cosmopolitanism with a strongly national consciousness. Notwithstanding such temperamental and generational differences, the two men had much in common. Both came to