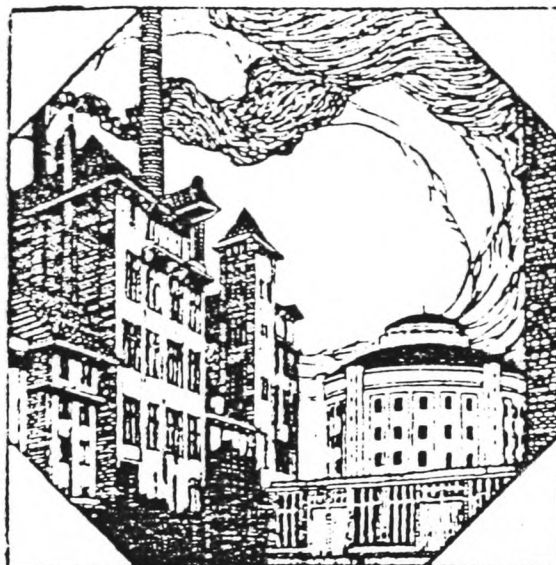


INDUSTRIAL ARCHITECTURE AND POLITICS

IN WILHELMINE GERMANY

VOL. II - NOTES AND ILLUSTRATIONS



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NOTES ON INTRODUCTION
(Pages 1-13)

1. D.Blackbourn, 'Populists and Patricians'. p.67.
2. D.Blackbourn ibid. p.13.
3. T.Nipperdey, 'Wie modern war das Kaiserreich?' p.5.
4. The best known and most complete expression of these views is Hans-Ulrich Wehler's 'Das deutsche Kaiserreich 1871-1918'. See also R.Dahrendorf, 'Society and Democracy in Germany'; V.Berghahn, 'Germany and the Approach of War in 1914'.
5. F.Stern, 'The Politics of Cultural Despair'. See also G.Stark, 'Entrepreneurs of Ideology'.
6. See D.Blackbourn & G.Eley, 'The Peculiarities of German History'; G.Eley, 'From Unification to Nazism' ; D.Blackbourn, 'Populists and Patricians'. For Eley's latest contribution to the debate see G.Eley, 'Putting German (and British) Liberalism into Context: Liberalism, Europe, and the Bourgeoisie 1840-1914'.
7. G.Eley in D.Blackbourn & G.Eley, 'The Peculiarities of German History' p.146.
8. G.Eley ibid. p.144.
9. For the controversy aroused by D.Blackbourn & G.Eley's 'Mythen deutscher Geschichtsschreibung. Die gescheiterte bürgerliche Revolution von 1848' see the long introduction to its revised and expanded English edition, 'The Peculiarities of German History'.
10. Jürgen Kocka's year-long research project at Bielefeld University's Centre of Inter-Disciplinary Research (1986-87) produced a number of books, including: J.Kocka (Ed.), 'Bürger und Bürgerlichkeit im 19.Jahrhundert'; J.Kocka (Ed.), 'Bürgertum im 19.Jahrhundert'. (3 vols.); H.Siegrist (Ed.), 'Bürgerliche Berufe'. In addition, twelve sessions of Werner Conze's 'Arbeitskreis für moderne Sozialgeschichte' were devoted to the theme of the 'Bildungsbürgertum' between 1980 and 1987. See W.Conze & J.Kocka (Eds.), 'Bildungsbürgertum im 19.Jahrhundert'. Mention should also be made of the 1976 volume, edited by Klaus Vondung and entitled 'Das wilhelminische Bildungsbürgertum; Zur Sozialgeschichte seiner Ideen'.
11. G.Eley, 'Putting German (and British) liberalism into context' p.36.
12. D.Tipps, 'Modernization theory and the study of national societies: a critical perspective' in: 'Comparative Studies in Society and History' 15 (1973) p.217. See also H.Kaelble (Ed.), 'Probleme der Modernisierung in Deutschland'; H.-U.Wehler, 'Modernisierungstheorie und Geschichte'; P.Flora, 'Modernisierungsforschung'.
13. D.Tipps, 'Modernization theory..' p.214.
14. T.Nipperdey, 'Wehlers Gesellschaftsgeschichte' in : 'Geschichte und Gesellschaft' 14/3 (1988), p.404.
15. T.Nipperdey ibid. p.415.
16. M.Eksteins, 'When death was young...: Germany, Modernism and the Great War' in: R.Bullen, H.Pogge von Strandmann, A.Polonsky (Eds.), 'Ideas into Politics' p.30.
17. R.Evans, 'Liberalism and Society: The Feminist Movement and Social Change' in: R.Evans (Ed.), 'Society and Politics in Wilhelmine Germany' p.207.
18. A.D.King (Ed.), 'Buildings and Society' p.1.
19. M.Schumacher, quoted by T.Schleper, 'Kunstwissenschaft und Fabrikbau', Osnabrück University Ph.D.1987. p.37.
20. W.Ruppert, quoted by K.Tenfelde, 'Schwierigkeiten mit dem Alltag' in: 'Geschichte und Gesellschaft' 10 (1984) p.386.(n.41).

21. On the use of the term 'Industriekultur' see Klaus Tenfelde, *ibid.* Also W.Weber, 'Von der 'Industriearchäologie' über das 'industrielle Erbe' zur 'Industriekultur'. Überlegungen zum Thema einer handlungsorientierten Technikgeschichte', in: U.Troitsch & G.Wohlauf (Eds.), 'Technik-Geschichte'; and P.Backes, 'Abenteuerreise in den Alltag? Über den Industrietourismus' in: 'Tendenzen. Zeitschrift für engagierte Kunst' Nr.159 1987.
22. T.Schleper, 'Kunstwissenschaft und Fabrikbau' p.58-81.
23. W.Ruppert, 'Die Fabrik'; H.Glaser, W.Ruppert, N.Neudecker (Eds.), 'Nürnberg. Eine deutsche Stadt im Maschinenzeitalter'; see also H.Glaser, 'Maschinenwelt und Alltagsleben'.
24. For example, J.Boberg, T.Fichter, E.Gillen (Eds.), 'Exerzierfeld der Moderne. Industriekultur in Berlin im 19.Jahrhundert', and 'Die Metropole. Industriekultur in Berlin im 20.Jahrhundert'; also, V.Plagemann (Ed.) 'Industriekultur in Hamburg'.
25. V.Rödel, 'Fabrikarchitektur in Frankfurt am Main, 1774-1924'; F.Böllhof, J.Boström, B.Hey, 'Industriearchitektur in Bielefeld. Geschichte und Fotografie'; W.Ruckdeschel & K.Luther, 'Technische Denkmale in Augsburg. Eine Führung durch die Stadt'; J.Thamer, 'Industriearchitektur in Erlangen' in: J.Sandweg (Ed.), 'Erlangen. Von der Strumpfer- zur Siemensstadt'; H.Knauß, 'Zweckbau-Architektur zwischen Repräsentation und Nutzen'; A.Frühauf's doctoral thesis on industrial architecture in Hamburg is also to appear shortly.
26. The 'Landeskonservator Rheinland' has published volumes on 'Technische Denkmale in Rheinland' (A.Föhl); 'Die Schwebebahn in Wuppertal' (H.-F.Schierk & N.Schmidt); and 'Die Entwicklung der optischen Telegrafie in Preußen..' (D.Herbarth). The equivalent authority in Hamburg has also published a series of 'Arbeitshefte', including 'Die Speicherstadt im Hamburger Freihafen' (K.Maak); 'Stadt und Hafen' (J.Ellermeyer & R.Postel); and 'Stadtgestalt durch Staatsgewalt? Das Hamburger Baupfleugesetz von 1912' (K.Rauschnabel).
27. See B.& H.Becher, 'Die Architektur der Förder- und Wassertürme'; and 'Zeche Zollern II. Aufbruch zur modernen Industriearchitektur und Technik'.
28. T.Schleper's thesis 'Kunstwissenschaft und Fabrikbau' was subtitled 'Über den Beitrag der visuellen Sozialgeschichte zur Industriekulturforschung'.
29. Roland Günter's efforts both to preserve and explain the Ruhr's industrial heritage deserve the greatest acclaim. His work has consistently posed challenging questions and opened up many worthwhile lines of enquiry. He displays a tendency, however, to assume more than the source material will allow, attempting to fit everything into the rather rigid framework of German history drawn up by his colleague at Bielefeld University, Hans-Ulrich Wehler. Moreover, in his desire to ask all the possible questions, he inevitably leaves much unanswered.
30. See for instance R.Günter, 'Arbeitersiedlungen im Ruhrgebiet' in: E.Trier & W.Weyres (Eds.), 'Kunst des 19.Jahrhunderts im Rheinland' (vol.2); R.Günter, 'Krupp in Essen' in: M.Warnke (Ed.), 'Das Kunstwerk zwischen Wissenschaft und Weltanschauung'; N.Bullock & J.Read, 'The movement for housing reform in Germany and France, 1840-1914'; N.Bullock, 'Housing reform and the Garden City movement in Germany, 1890-1914'; L.Niethammer on workers' estates of Ruhr industrial companies in: J.H.Müller (Ed.), 'Der westdeutsche Impuls. Die Folkwang-Idee des Karl Ernst Osthaus'.
31. In contrast to much of the 'Industriekultur' discourse, which dwells on the internal characteristics of the workplace, the emphasis here is on the

outward appearance of industrial buildings. This is not to dismiss the relevance of working conditions and practices as a social and political issue, nor the value of a 'subject-oriented' architectural history, but rather an acknowledgement of the pre-eminence of the factory facade as a medium of corporate expression and identity, both in relation to the workforce and the outside world.

32. D.H.Lawrence, 'Women in Love' p.476. The character of Loerke is treated unsympathetically by Lawrence. Most critics have suggested he is based in part on Mark Gutler, a British sculptor and acquaintance of Lawrence, but he may well reflect ideas and impressions picked up by the author during his stay in Germany.
33. D.H.Lawrence ibid. p.477.
34. D.H.Lawrence ibid. p.477.

NOTES ON CHAPTER ONE
(Pages 14-55)

1. Quoted by D.Landes in 'The Unbound Prometheus' p.178.
2. In 1875 49% of Germans worked in the primary sector (agriculture, forestry, fishing), 30% in the secondary sector (industry, mining) and 21% in the tertiary sector (services, transport, banking etc.). In 1900 these figures were 38%-37%-25% and by 1914 they were 34%-38%-28%. Figures from F.-W. Henning, 'Die Industrialisierung in Deutschland 1800-1914' p.20.
3. D.Landes, 'Unbound Prometheus' p.203.
4. F.-W. Henning, 'Die Industrialisierung in Deutschland 1800-1914' p.218.
5. F.-W. Henning ibid. p.219.
6. A.Behne, 'Der moderne Zweckbau' p.27.
7. M.Schumacher, 'Zweckbau und Industrieschloss' in: 'Tradition' (15) Jan.1970 ; R.Günter 'Zu einer Geschichte der technischen Architektur im Rheinland' ('Die Kunstgeschichte und Denkmalpflege des Rheinlandes', Beiheft 16, 1970).
8. 'Historicism' is the English translation of the German word 'Historismus', which came into use in the 1880s as a pejorative term to describe the contemporary practice of building in historical styles. Although historical styles had been revived before, the second half of the 19th century witnessed an unprecedented turnover of past forms, with a host of historical styles in widespread and simultaneous use - often, indeed, on the same building.
9. J.M Richards, 'The Functional Tradition in Early Industrial Buildings'.
10. G.Drebusch, 'Industriearchitektur' p.62-68.
11. Quoted by H.Friedrich in 'Die bauliche Gestaltung deutscher Eisenhüttenanlagen seit Beginn des 19. Jahrhunderts' ('Stahl und Eisen' (80) Oct. 1960 p.1634).
12. G.Drebusch, 'Industriearchitektur' p.86.
13. R.Günter, 'Geschichte der technischen Architektur im Rheinland' p.356.
14. See D.Spiegelhauer, 'Fabrikbau' in: E.Trier & W.Weyres (Eds.) 'Kunst des 19. Jahrhunderts im Rheinland', Vol.2 p.318-322.
15. R.Günter, 'Geschichte der technischen Architektur im Rheinland' p.364.
16. Quoted by C.Koschwitz in 'Die Hochbauten auf den Steinkohlenzechen des Ruhrgebiets' p.41.
17. J.Petsch, 'Deutsche Fabrikarchitektur im 19.Jahrhundert' in: B.Korzus (Ed.), 'Fabrik im Ornament. Ansichten auf Firmenbriefköpfen des 19. Jahrhunderts' catalogue p.46.
18. H.A.N.Brockmann, 'The British Architect in Industry 1841-1940' p.42.
19. H.Henning, 'Soziale Verflechtungen der Unternehmer in Westfalen 1860-1914' in: 'Tradition' (23) Jan. 1978.
20. H.Henning ibid. p.18-19.
21. The 1887 'Merchandise Marks Act', which introduced the stamp 'Made in Germany' for German products on sale in the British Empire, was in part a protectionist measure, but the view that German goods generally lacked quality was widely held; indeed, many Germans were of the same opinion.
22. H.Conrad, 'Zeche Zollern 2. Ein technik- und wirtschaftsgeschichtliches Kulturdenkmal', in: B.Becher, H.Conrad, E.Neumann (Eds.), 'Zeche Zollern 2' p.219. The pit has a special place in the short history of German industrial archaeology because it was the fight to save these buildings -and especially the machine hall - which first spurred the nascent industrial preservation movement into action. Although production at Zollern 2 had ceased in 1955, it was not until 1969 that plans were

unveiled to finally demolish the complex. As a result of public protests the machine hall was granted a last minute reprieve and was officially 'listed' as a technical monument on December 30th 1969, with the other remaining pit buildings joining it in subsequent years. The site is now earmarked as the headquarters of the Westphalian Industrial Museum.

23. The frequent use of elements from sacral architecture in heavy industrial buildings echoes Alfred Krupp's famous 1873 edict: "The object of work should be the common good, then work is a godsend, then work is prayer."
24. H.Conrad 'Zeche Zollern 2..' in B.Becher, H.Conrad, E.Neumann (Eds.), 'Zeche Zollern 2' p.199.
25. H.Conrad ibid. p.219.
26. P.Randebrock, 'Die Schachtanlage Zollern 2 der GBAG' in: 'Glückauf' (41) June 1905 p.783.
27. H.Conrad, 'Zeche Zollern 2..' in B.Becher, H.Conrad, E.Neumann (Eds.), 'Zeche Zollern 2' p.240.
28. G.F.Koch, 'Die Bauten der Industrie-, Gewerbe- und Kunst-Ausstellung in Düsseldorf 1902 in der Geschichte der Ausstellungsarchitektur', in: E.Mai, H.Pohl, S.Waetzold (Eds.), 'Kunstpolitik und Kunstförderung im Kaiserreich'.
29. H.Conrad 'Zeche Zollern 2..' in B.Becher, H.Conrad, E.Neumann (Eds.), 'Zeche Zollern 2' p.239f. 'Bau der Maschinenhalle'. Möhring's 'Jugendstil' doorway is portrayed on a current German postage stamp (an accolade it shares with Peter Behrens' AEG turbine factory).
30. In view of the 'masses' who were trying to gain admittance to the mine, the management was forced to discuss the question of whether the arrangements for visiting the pit should be changed. As a temporary measure, large parties were banned from Zollern 2 in 1905, but within a few months the point had been reached where the number of visitors was adversely affecting production. It was then decided to allow entry only to visitors who had obtained prior permission. (Conrad ibid. p.201). As a response to public interest a scale model of the pit was constructed and displayed at the 1905 World Exhibition in Liège.
31. In 1903 it employed 1,129 men and produced over 230,000 tons of coal. A year later the workforce had risen to 1,353 and production to 300,000 tons. During World War One the pit was producing over 400,000 tons of coal annually. (Conrad, ibid. p.203)
32. G.Gebhardt, 'Ruhrbergbau. Geschichte, Aufbau und Verflechtungen seiner Gesellschaften und Organisationen.' p.212.
33. The Becher, Conrad, Neumann volume was subtitled 'Aufbruch zur modernen Industriearchitektur' and suggested that the building of the machine hall represented a significant 'Stilwandel'.
34. G.Gebhardt, 'Ruhrbergbau..' p.212.
35. G.Gebhardt ibid. p.209-212. See also 'Die Steinkohlenbergwerke der Vereinigte Stahlwerke' (Vol.2). The pit continued in production until the early 1980s. The pit-head building now houses a supermarket and a squash club.
36. G.Gebhardt ibid. p.208-212. Also 'Die Steinkohlenbergwerke der Vereinigte Stahlwerke' (Vol.16).
37. This is probably correct, although several accounts date the building as late as 1910 (For example J.Biecker & W.Buschmann (Eds.), 'Bergbauarchitektur' p.143). It is now used as a car-repair workshop.
38. Quoted in J.Boberg, T.Fichter, E.Gillen (Eds.), 'Die Metropole. Industriekultur in Berlin im 20. Jahrhundert'. p.22.
39. 'Das Kauen- und Verwaltungsgebäude der Zeche Recklinghausen I' in:

- 'Glückauf' (41) May 1905 p.601-7. Today the much-altered building is home to a textile company.
40. R.Günter, 'Oberhausen' (Die Denkmäler des Rheinlandes-Band 22) p.90. Unfortunately the complex was pulled down in the late 1970s.
 41. H.Kellermann & H.Weigle, 'Die Schachtanlage Jacobi der GHH' in: 'Glückauf' (58) Jan.1922 p.1. Also Bergbau-Archiv, Bochum ; BBA 30/378 (Zeche Jacobi 1912-27), BBA 30/884 (Zeche Jacobi 1911-39).
 42. Quoted by F.Wenger in 'Wandlungen architektonischer Vorstellungen..' TH Hanover Ph.D. 1967 p.22.
 43. F.Wenger ibid. p.23.
 44. F.Wenger ibid. p.24.
 45. Further details on this and other administrative buildings of the Ruhr can be found in Brigitte Schlüter's Ph.D. thesis, 'Verwaltungsbauten der rheinisch-westfälischen Stahlindustrie 1900-1930.' (Bonn 1990.)
 46. Thyssen Archiv, PA Oest.
 47. P.Seidel, 'Der Kaiser und die Kunst' p.38.
 48. P.Seidel ibid. p.10.
 49. P.Seidel ibid. p.31.
 50. P.Seidel ibid. p.14.
 51. See, for instance, 'Zur Rede des Kaisers' in: 'Der Kunstwart' (15) Jan.1902 p.361-5.
 52. 'Der Kunstwart' ibid., also 'Hofkunst und andere Kunst' in: 'Der Kunstwart' (15) Nov.1901 p.85-90.
 53. P.Seidel, 'Der Kaiser und die Kunst' p.44 ; E.Staisch, 'Eisenbahnen rollen durch das 'Tor zur Welt'' p.56-7.; E.Staisch, 'Hauptbahnhof Hamburg' p.138.
 54. A.Behne in 'Die Tat' 1913/14 quoted in B.Bergius, J.Frecot, D.Radicke (Eds.), 'Architektur, Stadt und Politik' p.251 note 30.
 55. H.Muthesius in 'Der Kunstwart' (17) 1904 p.469.
 56. Most notably, G.Kratzsch, 'Kunstwart und Dürerbund' and W.Krabbe, 'Gesellschaftsveränderung durch Lebensreform'.
 57. G.Kratzsch ibid. p.136-8.
 58. A.Behne, 'Heutige Industriebauten' in: 'Velhagen & Klasings Monatshefte' (28) 1914 p.53.

NOTES ON CHAPTER TWO
(Pages 56-102)

1. A graduate student of Prof. Nipperdey in Munich, Andreas Knaut, has recently started research for a thesis on 'Heimatschutz' in Imperial Germany. Published works which contain sections on 'Heimatschutz' include K.Bergmann, 'Agrarromantik und Großstadtfeindschaft'; R.P.Sieferle, 'Fortschrittsfeinde ? Opposition gegen Technik und Industrie von der Romantik bis zur Gegenwart'; R.Hamann & J.Hermand, 'Stilkunst um 1900'.
2. H.G. Andresen, 'Heimatschutzarchitektur in Lübeck. Ein vergessener Versuch des angemessenen Umgangs mit einem Stadtdenkmal' in M.Brix (Ed.) 'Lübeck : die Altstadt als Denkmal'.
3. For the origins of the 'Heimatschutz' idea see K.Bergmann ibid. and Christian Otto's Summer 1983 'Art Journal' essay 'Modern Environment and Historical Continuity : The Heimatschutz Discourse in Germany' - the only English language article on the movement in recent years.
4. Quoted in K.Bergmann, 'Agrarromantik' p.118.
5. Quoted in K.Bergmann ibid. p.108.
6. Quoted in K.Bergmann ibid. p.129.
7. R.Hamann & J.Hermand, 'Stilkunst' p.365. A similar line is pursued by G.Stark in 'Entrepreneurs of Ideology. Neoconservative Publishers in Germany, 1890-1933'; and H.Mommsen, 'Die Auflösung des Bürgertums seit dem späten 19. Jahrhundert' in: J.Kocka (Ed.), 'Bürger und Bürgerlichkeit im 19. Jahrhundert'.
8. K.Bergmann, 'Agrarromantik' p.129.
9. P. Schultze-Naumburg, 'Die Entstellung unseres Landes' (3rd Ed.) p.78.
10. C.F.Otto, 'Modern Environment..' in: 'Art Journal' Summer 1983 p.148.
11. The strength of 'Heimatschutz' in Saxony was demonstrated once more on February 17th 1990, when the 'Landesverein Sächsischer Heimatschutz' was refounded by around 200 'enthusiastic supporters of the Heimatschutz idea' at a special meeting in Dresden. See 'Sächsische Heimatblätter' 3/1990 p.145-6.
12. C.F.Otto, 'Modern Environment..' in: 'Art Journal' Summer 1983 p.149.
13. See 'Der Heimatschutz im sächsischen Landtag' in: 'Deutsche Bauzeitung' 49 (1915) p.126. The Saxon Ministry of the Interior first contributed to the 'Heimatschutz' movement in 1905 with a 100 Mark donation. In 1907 an annual state subsidy of 15,000 Marks was granted to the Saxon 'Heimatschützer' to establish an office with a full-time architect. This figure rose to 42,500 Marks in 1914, before falling to 37,000 Marks per annum for the years 1916-1919. The level of state subsidies for 'Heimatschutz' organisations varied greatly however, with no other state matching the Saxon levels. In the Rhineland, subsidy amounted to 300 Marks per annum (from 1909 to 1914), rising to 500 Marks in 1915. In Schleswig-Holstein the figure was 800 Marks.
14. Since there was little tradition of red-brick building in Saxony the movement's early literature attacked its use. This brought a swift and angry response from North German 'Heimatschützer', who viewed brick as the quintessential local material.
15. StA Hamburg A 507/13: Kapsel 1. 'Verein Heimatschutz im Hamburger Staatsgebiet' - 'Verzeichnis der Mitglieder vom 1/10/1911 bis 1/10/1912'.
16. 'Mitteilungen des Rheinischen Vereins für Denkmalpflege und Heimatschutz' Heft 1 1907.
17. StA Dresden MdI 17518. 'Ausschuß zur Pflege heimatlicher Kunst und Bauweise in Sachsen und Thüringen 1903-08'; p.40 - 'Mitgliederverzeichnis

Abt. Sachsen 1906.'

18. R.P.Sieferle, 'Fortschrittsfeinde' p.206.
19. G.Eley, 'The German Right 1860-1945 : How it changed' in: 'From Unification to Nazism. Reinterpreting the German Past' p.235-6.
20. C.J.Fuchs, 'Heimatschutz und Volkswirtschaft' in: 'Der Kunstwart' 17/2 (1904) p.212.
21. P.Schultze-Naumburg quoted in 'Deutsche Bauzeitung' 41 (1907) p.571.
22. P.Schultze-Naumburg, 'Kraftanlagen und Talsperren' in: 'Der Kunstwart' 19/2 (1906) p.136.
23. W.Klatte, 'Zur Umgestaltung des Fabrikbauwesens' in: 'Heimatschutz' 4/1 (1908) p.16.
24. P.Schultze-Naumburg, 'Die Entstellung..' p.10-12.
25. StA Dresden MdI 17518 'Ausschuß zur Pflege..' p.34.
26. StA Dresden MdI 17518 p.49-53; MdI 17522 p.69.
27. P.Schultze-Naumburg, 'Kraftanlagen..' in: 'Der Kunstwart' 19/2 p.132.
28. P.Bröcker, 'Über Hamburgs neue Architektur' p.16.
29. O.Schwindrazheim, 'Von alter zu neuer Heimatkunst' p.33.
30. H.G.Andresen, in M.Brix (Ed.) 'Lübeck..' p.51.
31. A.H.Murken, 'Die neuen Bade- und Kuranlagen in Bad Nauheim..'
32. 'Der Industriebau' 1 (1910) p.266.
33. K.Ebinghaus, 'Bad Nauheim' in: 'Die Rheinlande' 8/2 (1908) p.182.
34. 'Der Industriebau' 1 (1910) p.266 & 2 (1911) p.97.
35. 'Der Industriebau' 3 (1912) p.50.
36. 'Der Industriebau' 1 (1910) p.267.
37. 'Der Industriebau' 1 (1910) p.267.
38. See the 'Mitteilungen des Rheinischen Vereins für Denkmalpflege und Heimatschutz', 1/1 (1907) p.14.
39. S.Simon described his building plans in 'Der Industriebau' 1 (1910) p.241. Also see 'Mitteilungen des Rheinischen Vereins für Denkmalpflege und Heimatschutz', 4/1 (1910) p.47-49.
40. 'Deutsche Bauzeitung' (44) 1910 p.71-72.
41. H.Verbeek, 'Die Hochbautätigkeit in der Alt-und Neustadt von 1888 bis 1918' in: 'Köln. Bauliche Entwicklung 1888-1927' p.32-33.
42. 'Der Industriebau' 1 (1910) p.49-51.
43. See V.Clark's 1983 University of California Ph.D. thesis 'A Social History of German Architects'.
44. For instance, Gustav Krupp von Bohlen und Halbach who was not only a member of the Rhineland 'Heimatschutz' organisation, but paid a 100 Mark annual donation to the national 'Bund Heimatschutz' (HA Krupp FAH 21/876).
45. 'Mitteilungen des Rheinischen Vereins für Denkmalpflege und Heimatschutz' 4/1 (1910) - 'Industriebauten'.
46. C.Westphal, 'Fritz Höger. Der niederdeutsche Backstein-Baumeister' p.67.
47. C.Westphal ibid. p.67.
48. 'Der Industriebau' 5 (1914) p.2-3.
49. In a letter from Gropius to Karl Ernst Osthaus (23/3/1912), quoted by S.Müller in: H.Hesse-Frielinghaus (Ed.), 'Karl Ernst Osthaus. Leben und Werk' p.289.
50. O.Schwindrazheim, 'Heimatkunst' p.66.
51. P. von Hedemann-Heespen, 'Sollen wir Heimatschutz erzwingen ? Zur Philosophie und Taktik des Heimatschutzes' in: 'Heimatschutz' 6/3 (1910).
52. Freiherr von Kerckerinck-Borg, 'Heimatschutz in Westfalen' speech 5/1/1910 reprinted in 'Der Deutsche Heimatschutz. Ein Rückblick und Ausblick' (Munich 1930) p.221.
53. 'Heimatschutz' was essentially a grass-roots movement which came 'from

below', but it clearly also received considerable help 'from above'. The extent to which 'Heimatschutz' was fostered by government, and the reasons for this support, are important issues which merit closer attention.

54. J.K.Niedlich, 'Deutscher Heimatschutz als Erziehung zu deutscher Kultur' p.8.
55. 'Maßnahmen gegen bauliche Verunstaltungen in Stadt und Land in Preußen', in: 'Heimatschutz' 4/1 (1908) p.7.
56. P.Schultze-Naumburg, 'Die Entstellung..' - Preface.
57. 'Jahresversammlung des Bundes Heimatschutz in Lübeck am 23. Sept. 1908' in: 'Heimatschutz' 4/3 (1908) p.90.
58. 'Badische Erlasse über Ingenieurbauten' in: 'Heimatschutz' 8/1 (1912) p.45.
59. 'Bericht über die Gründung des Vereins' in: 'Mitteilungen des Rheinischen Vereins für Denkmalpflege und Heimatschutz' 1 (1907).
60. 'Schlesische Zeitung' 25/2/1913 in StA Dresden MdI 17528. 'Heimatschutz; heimatliche Bauweise 1912-1919' p.103.
61. StA Dresden MdI 17531. 'Heimatschutz..' p.75.
62. Count Vitzthum von Eckstädt, quoted in 'Deutsche Bauzeitung' 49 (1915) p.141. Full text of debate (II. Kammer 77. Sitzung 24/4/1914) in StA Dresden MdI 17531. 'Heimatschutz. Interpellation des Abgeordneten Brodauf in der II.Kammer der Ständerversammlung 1913-1914.'
63. P.Schultze-Naumburg quoted by F.Koch 'Kurzer Überblick über den Stand der Heimatschutzbewegung' in: 'Heimatschutz' 8/2 (1912) p.70.
64. F.Koch ibid. p.70.
65. F.W.Bredt, 'Die neue Gesetzgebung auf dem Gebiete der Denkmalpflege und des Heimatschutzes', 'Dürerbund Flugschriften' 53, 1909 p.9.
66. The Prussian government defined 'gross disfigurement' as "the creation of a positively ugly and therefore painful condition for any pair of eyes sensitive to the aesthetics of design".
67. 'Stenographische Berichte über die Verhandlungen des Preußischen Hauses der Abgeordneten' (3.Session 1907).
68. 'Maßnahmen gegen bauliche Verunstaltungen in Stadt und Land in Preußen' in: 'Heimatschutz' 4/1 (1908) p.1-5 & 'Deutsche Bauzeitung' 42 (1908) p.74-76.
69. 'Zur praktischen Durchführung der preußischen Maßnahmen gegen bauliche Verunstaltungen' in: 'Heimatschutz' 4/1 (1908) p.5.
70. By November 1909, 101 sets of by-laws were in place. See 'Heimatschutz' 5/1 (1909) p.22.
71. F.Schumacher, 'Gefahren der Ortstatute' in: 'Heimatschutz' 4/1 (1908) p.29-32.
72. F.W.Bredt, 'Ortsvorschriften' in: 'Heimatschutz' 5/1 (1909) p.15.
73. F.W.Bredt, 'Fabrikbauten unter Berücksichtigung des bergischen Landes' in: 'Der Industriebau' 1910 p.69-70.
74. 'Mitteilungen..' 5/2 (1911) p.143. & 8/3 (1914) p.177.
75. StA Dresden MdI 17522; MdI 17523; MdI 17524.
76. One of the fiercest critics of 'Heimatschutz' was Wilhelm Wendlandt, general secretary of the 'Bund der Industriellen' and founder of the 'Verband Deutscher Dachpappenfabrikanten' (See his article 'Ein wenig Ästhetik und Statistik' in 'Der Industriebau' 1 1910 p.271). Wendlandt was involved in the setting up of the 'Commission to Remove the Excesses of the Heimatschutz Agitation' which paid for the publication of a pamphlet in the form of a 'Submission' to the Upper House of the Prussian Parliament. The manufacturers of roofing felt and other 'threatened' materials also supported competitions to find new and

- aesthetically-pleasing architectural forms which utilised their products.
77. F.W.Bredt, 'Die neue Gesetzgebung..' p.13.
 78. G.Rischawy, 'Von der Arbeit des Schleswig-Holsteinischen Landesvereins für Heimatschutz' in: 'Hamburgische Zeitschrift für Heimatkultur' April 1913 p.5.
 79. A.Lucas, 'Erinnerungen aus meinem Leben' (1959) p.80.
 80. 'Falscher Heimatschutz' in: 'Kunstgewerbeblatt' NF19 (1907) p.59-60.
 81. 'Deutsche Bauzeitung' 44 (1910) p.116.
 82. F.Avenarius, 'Landräte als Heimatschützer' in: 'Der Kunstwart' 24/2 (1911) p.281.
 83. 'Der Heimatschutz im sächsischen Landtag' in: 'Deutsche Bauzeitung' 49 (1915) p.126-188. See also StA Dresden MdI 17531 'Heimatschutz. Interpellation des Abgeordneten Brodauf in der II. Kammer der Ständeversammlung 1913-14'.
 84. C.Gurlitt in 'Deutsche Bauzeitung' 45 (1911) p.212.
 85. O.Schwindrazheim, 'Heimatkunst' p.36-37.
 86. 'Der Kunstwart' 23/2 (1910) p.409.
 87. P.Klopfer, 'Der Heimatschutz und die Neuzeit' in: 'Der Industriebau' 6 (1915) p.361.
 88. 'Berlin und seine Bauten' Teil X , Band B (Berlin 1971). Also S.Bohle , 'Die Architektur der Berliner Hoch- und Untergrundbahn bis 1930' F.U. Berlin Ph.D. 1978. p.130 f.
 89. W.Franz, 'Die Vernachlässigung der Industriebauten auf den technischen Schulen' in: 'Heimatschutz' 8/1 (1909) p.23.
 90. P.Schmohl, 'Entwerfen von technischen Bauten in der Baugewerkschule' in: 'Heimatschutz' 8/1 (1912) p.24-33.
 91. G.Bestelmeyer, 'Industriebauten und Industrieland' in: 'Der Kunstwart' 27/1 (1914) p.194-196.
 92. G.Bestelmeyer ibid. p.196.
 93. W.Lindner, 'Ist der Heimatschutz kulturfördernd ?' in: 'Deutsche Bauzeitung' 40 (1915) p.268.

NOTES ON CHAPTER THREE

(Pages 103-145)

1. C.J.Fuchs quoted in O.Hoffmann (Ed.), 'Der Deutsche Werkbund - 1907, 1947, 1987' catalogue p.26.
2. E.Haase, 'Die Ideologiefunktion des ästhetischen Produkt- und Umweltgestaltung, dargestellt an der Arbeit und Wirkung des Deutschen Werkbundes' ; G.Pollack, 'Die ideologische, wirtschaftliche und gesellschaftspolitische Funktion des Deutschen Werkbundes 1907-1919' ; S.Müller, 'Kunst und Industrie. Ideologie und Organisation des Funktionalismus in der Architektur' ; W.Fischer (Ed.), 'Zwischen Kunst und Industrie. Der Deutsche Werkbund' catalogue ; J.Campbell, 'The German Werkbund. The Politics of Reform in the Applied Arts' ; K.Junghanns, 'Der Deutsche Werkbund. Das erste Jahrzehnt' ; L.Burckhardt, (Ed.) 'The Werkbund. Studies in the History and Ideology of the Deutscher Werkbund 1907-1933' ; P.Kallen, 'Unter dem Banner der Sachlichkeit'.
3. The phrase was attributed to Hermann Muthesius.
4. Paragraph two of the DWB Constitution. See 'Werkbund Yearbook' 1912.
5. W.Dohrn (1907-10), A.Paquet (1910-11), E.Jäckh (1912-22). Both Dohrn and Paquet had studied with Naumann's friend and 'teacher' Lujo Brentano (1844-1931) in Munich, as indeed had Theodor Heuss, who joined the DWB's management in 1917. E.Jäckh was editor of the Neckar-Zeitung in Heilbronn and had helped Naumann's successful 1907 Reichstag election campaign.
6. F.Schumacher's speech printed in 'Der Kunstwart' 1908 21/2-8 p.135-8.
7. Industry became involved in the DWB in three 'waves'. Firstly, in 1907-8, high-quality art and craft manufacturers joined. Then, between 1909-12, companies from the rapidly growing electrical and chemical sectors, the automobile industry, producers in the food and wine trade, and many light manufacturing firms signed up. Finally, the first of the giant 'heavy' industrial companies to join the DWB, the Friedrich Krupp AG, applied for membership in January 1913. After World War One heavy industrial concerns (GHH, Stumm) were just as likely to commission DWB architects as companies from other sectors of industry, although they continued to be wary of the DWB as an organisation.
8. DWB Mitgliederverzeichnis 1910 (K.E.O.Archiv DWB 1/331-1).
9. 'Werkbund' supporters in Bavaria were organised in the 'Münchner Bund', which worked closely with the DWB.
10. W.Dohrn, 'Denkschrift über die Organisation und die Arbeit des DWB' (1907) reprinted in K.Junghanns, 'Der Deutsche Werkbund. Sein erstes Jahrzehnt' p.144.
11. Figures from DWB Jahresberichte (K.E.O.Archiv DWB 1/330).
12. In 1913 the DWB Executive Secretary Ernst Jäckh wrote that individual members of the organisation paid an annual membership of between 10 and 1000 Marks, and that firms and corporations contributed between 100 and 1000 Marks per annum (In a letter to the Fried. Krupp AG - HA Krupp WA IV 1541 V.3361 p.183). The DWB's income from members grew only slowly in its first years: in the business year 1908-9 it amounted to just over 17,181 Marks, rising to 18,857 Marks in 1910-11, before slipping back to 17,900 Marks in 1911-12. (K.E.O.Archiv DWB 1/330, DWB 1/94, DWB 1/324). The financial fortunes of the organisation changed in 1913-14, when membership contributions jumped to over 41,000 Marks, due in no small measure to the support of the industrialist Robert Bosch. By 1917 Bosch's annual donation to the DWB had risen to 60,000 Marks (K.E.O.Archiv DWB 1/243).
13. Figures from J.Campbell, 'The German Werkbund' p.37.

14. J.Campbell ibid. p.37.
15. G.Kerschensteiner's speech printed in 'Die Veredelung der gewerblichen Arbeit im Zusammenhang von Kunst, Industrie und Handwerk - Verhandlung des DWBs zu München am 11-12 Juli 1908' p.141.
16. W.Dohrn 'Denkschrift..' (1907) reprinted in K.Junghanns, 'Der Deutsche Werkbund' p.147.
17. W.Dohrn, 'Eine Ausstellung architektonisch guter Fabrikbauten' in: 'Der Industriebau' 1910 p.2.
18. The commission first comprised of the architects Poelzig, Riemerschmid and Wagner, the engineer Urbahn and the DWB's Wolf Dohrn. In 1910 it was reconstituted to include Osthaus, Muthesius, Franz and Paquet.
19. H.Poelzig's paper reported in the 'Verhandlungsbericht' of the 2nd annual conference, Frankfurt 1909. p.26 (DWB-Archiv).
20. Whenever it looked as if a DWB leader was suggesting the desirability of artistic guidelines for the future development of German architecture or design, such as Muthesius' call for a certain amount of standardization ('Typisierung') at the 1914 Cologne conference, he was promptly met by howls of disapproval. Any programme which implied a restriction of free artistic expression, was anathema to most 'Werkbund' architects. For the Cologne debates see J.Campbell, 'The German Werkbund'.
21. See for example Joachim Petsch's book 'Architektur und Gesellschaft. Zur Geschichte der deutschen Architektur im 19. und 20. Jahrhundert'.
22. W.Dohrn, 'Eine Ausstellung architektonisch guter Fabrikbauten' p.1.
23. W.Dohrn ibid. p.2.
24. S.Müller, 'Deutsches Museum für Kunst in Handel und Gewerbe' in: H.Hesse-Frielinghaus (Ed.), 'Karl Ernst Osthaus. Leben und Werk'.
25. S.Müller, 'Kunst und Industrie' p.122.
26. The text was dated 29th January 1911.
27. W.Gropius' speech is reprinted in full in K.Wilhelm's book 'Walter Gropius, Industriearchitekt'.
28. K.E.Osthaus, 'Industriebauten und Reklamewesen in Deutschland' 1913. (K.E.O.Archiv A 1088/4).
29. W.Gropius, 'Die Entwicklung moderner Industriebaukunst' (1913) ; 'Der stilbildende Wert industrieller Bauformen' (1914).
30. K.Wilhelm, 'Walter Gropius, Industriearchitekt' p.25.
31. W.Gropius, 'Sind beim Bau von Industriegebäuden künstlerische Gesichtspunkte mit praktischen und wirtschaftlichen vereinbar' in: 'Der Industriebau' 3 (1912) p.6.
32. H.Poelzig, 'Der neuzeitliche Fabrikbau' in: 'Der Industriebau' 1911 p.101.
33. O.Schulze, 'Die Bauten für Technik und Industrie' in: 'Der Industriebau' 1 (1910) p.36.
34. J.A.Lux, 'Der moderne Fabrikbau' in: 'Der Industriebau' 1 (1910) p.83.
35. Dr.Mackowsky, 'Der Industriebau und die moderne Baukunst' in: 'Der Industriebau' 4 (1913) p.177.
36. E.Beutinger, 'Fabrikbau' in: 'Der Industriebau' 6 (1915) p.268.
37. H.Muthesius, 'Das Formproblem im Ingenieurbau' in 'Werkbund Yearbook' 1913 p.30.
38. P.Behrens speech 10/12/1912 printed in the album 'Zur Erinnerung an die Einweihung des Verwaltungsgebäudes der Mannesmannröhren-Werke in Düsseldorf' p.85. (Mannesmann-Archiv).
39. P.Behrens ibid. p.85.
40. P.Behrens in: 'Technische Abende im Zentralinstitut für Erziehung und Unterricht' Berlin 1917 p.3-22.
41. Albert addressed the DWB's first annual conference in Munich (1908). His

speech, printed in 'Die Veredelung der gewerblichen Arbeit', closed with the rallying call: "In Brussels it will be a case of opening up new markets for the quality products of German craft, in the long-running battle for the world market. I can only hope that the members of the Werkbund will not be missing there."

42. For the Cologne exhibition see W.Herzogenrath (Ed.), 'Der westdeutsche Impuls. Die DWB Ausstellung Cöln 1914'.
43. 'Bremische Biographie 1912-1962' p.421.
44. E.Beutinger, 'Die Fabrikanlage der Kaffee Handels AG Bremen' in: 'Der Industriebau' 1 (1910) p.75.
45. E.Beutinger ibid. p.75.
46. P.Bonatz, 'Leben und Bauen' p.54-55.
47. 'Neuzeitliche Industriebauten' in: 'Mitteilungen des Rheinischen Vereins für Denkmalpflege und Heimatschutz' 1910 4/1 p.31.
48. 'Wir und der Werkbund' in: 'Leibniz-Blätter' 21/3/1914 p.3. (Bahlsen-Archiv).
49. 'Außen-Reklame' in: 'Leibniz-Blätter' 29/6/1912 p.1. (Bahlsen-Archiv).
50. 'Beweggründe, Taten und Wirkungen' in: 'Leibniz-Blätter' 7/9/1912 p.1. (Bahlsen-Archiv).
51. 'Kunst und Kunstgewerbe in unserem Fabrik-Betriebe' in: 'Leibniz-Blätter' 12/10/1912 p.3. (Bahlsen-Archiv).
52. 'Beweggründe, Taten und Wirkungen' in: 'Leibniz-Blätter' 7/9/1912 p.1. (Bahlsen-Archiv).
53. 'Leibniz-Blätter' 18/5/1912 p.3. (Bahlsen-Archiv).
54. B.Grubert, 'Hermann Bahlsen und das Projekt der TET-Stadt.' Typewritten manuscript in Bahlsen-Archiv.
55. H.Kreidt 'Industriebauten', in: K.Weber (Ed.), 'Berlin und seine Bauten' vol.9 1971 p.46-7.
56. Quoted in 'Ludw. Loewe & Co. AG Berlin 1869-1929' Berlin 1930 p.42.
57. S.Anderson, 'Peter Behrens and the New Architecture of Germany'; H-J.Kadatz, 'Peter Behrens. Architekt, Maler, Grafiker..'; A.Windsor, 'Peter Behrens: Architect and Designer'; T.Buddensieg (with H.Rogge) 'Industriekultur'.
58. Most accounts accept the view expressed by Behrens' 1928 biographer Paul Cremers that the man directly responsible for Behrens' employment was Paul Jordan (1854-1937), himself an engineer, manager of the Humboldthain complex and later an elected member of the DWB's management committee. It is likely, however, that Behrens' work for the company was also encouraged by Walther Rathenau (1867-1922), the son of the AEG's founder and Managing Director Emil Rathenau. Behrens had lunch with Walther Rathenau on a number of occasions, for instance in March 1911 and January 1912. See 'Walther Rathenau..Notes and Diaries 1907-1922' (H.Pogge von Strandmann (Ed.) p.116 and p.145. Alan Windsor points out that Behrens mentions 'Freund Rathenau' in a letter to Maximilian Harden as early as December 1905 and by 1909 Rathenau was writing to Behrens as 'Lieber Freund'. See A.Windsor, 'Peter Behrens..' p.77.
59. Gropius worked for Behrens between late 1907 and Spring 1910. Mies van der Rohe entered Behrens studio in October 1908 and remained until Spring 1912. Le Corbusier, then under his real name Jeanneret, spent five months at Neubabelsberg in the Summer of 1910.
60. The Turbine Factory employed 4,400 workers at the end of the business year 1913-14. A.Fürst, 'Emil Rathenau. Der Mann und sein Werk' p.88.
61. K.E.Osthaus, 'Ein Fabrikbau von Peter Behrens' in the 'Frankfurter Zeitung' 10/2/1910.

62. F.Neumeyer, 'Das Pathos des Monumentalen' in: B.Bergius, J.Freecot, D.Radicke (Eds.), 'Architektur, Stadt und Politik' Festschrift für Julius Posener p.248.
63. E.Schüler quoted by F.Neumeyer ibid. p.249.
64. P.Meyer quoted by S.Anderson, 'Peter Behrens' p.44.
65. C.E.Jeanneret (1912) quoted in A.Windsor, 'Peter Behrens..' p.102.
66. F.Mannheimer 'AEG-Bauten', in: 'Werkbund Yearbook' 1913 p.37.
67. K.Scheffler quoted in H-J.Kadatz, 'Peter Behrens..' p.213.
68. E.Mendelsohn quoted in M.Hamm, 'Berlin. Denkmäler einer Industrielandschaft' p.17.
69. P.Behrens, 'Einfluß von Zeit- und Raumausnutzung auf moderne Formentwicklung' in: 'Werkbund Yearbook' 1914 p.8.
70. F.Mannheimer, 'AEG-Bauten' in 'Werkbund Yearbook' 1913 p.40.
71. T.Buddensieg, 'Industriekultur' p.36.
72. T.Buddensieg, 'Industriekultur'; A.Windsor, 'Peter Behrens..', S.Anderson, 'Peter Behrens..' etc.
73. A.Fürst, 'Emil Rathenau..' p.95.
74. A.Fürst ibid. p.82.
75. W.Ribbe and W.Schäche, 'Die Siemensstadt' p.179.
76. F.Wenger, 'Wandlungen architektonischer Vorstellungen..' Ph.D. TH Hanover 1967.
77. Referred to by N.Eich in his 10/12/1912 speech, printed in 'Zur Erinnerung an die Einweihung des Verwaltungsgebäudes..' p.55.
78. N.Eich ibid. p.58.
79. 'Unser Haus' in MW-Rundschau May 1920 p.41. ('Aus der Festschrift zur Einweihung des Mannesmannhauses').
80. 'Gedenkbuch zum 50. jährigen Bestehen der Continental, 1871-1921' Hanover 1921. Chp. 4 'Die Zeit der Blüte'.
81. 'Continental. Ein Jahrhundert Fortschritt und Leistung' p.42.
82. S.Müller, 'Ideologie und Organisation des Funktionalismus' p.39.
83. H.Muthesius, 'Die Baukunst im Dienste der kaufmännischen Werbetätigkeit' in: 'Das Plakat' 1920 11/6 p.259.
84. For example, in: 'Baumeister' 12 (1914); 'Dekorative Kunst' 19 (1916); 'Kunstgewerbeblatt' NF25 (1914); 'Neudeutsche Bauzeitung' 18 (1922) etc.
85. F.Hellwag, 'Der Fabrik-Neubau der mechanischen Seidenweberei Michels & Cie. in Nowawes bei Potsdam' in: 'Kunstgewerbeblatt' NF25 (1914) p.123.
86. T.Effenberger, 'Chemische Fabrik AG vorm. Moritz Milch & Co.' in: 'Der Industriebau' 7 (1916) p.97.
87. T.Heuss, 'Hans Poelzig. Das Lebensbild eines deutschen Baumeisters' p.26.
88. H.Weber, 'Walter Gropius und das Faguswerk'. See also Reyner Banham's 'A Concrete Atlantis'. Karin Wilhelm suggests, on the basis of a conversation with Gropius' former colleague Ernst Neufert, that Landrat Burchard also made a direct personal appeal to Benschmidt to give warm consideration to Gropius' offer. See K.Wilhelm, 'Walter Gropius, Industriearchitekt' footnote n.283.

NOTES ON CHAPTER FOUR

(Pages 146-188)

1. E.Jäckh, 'Der goldene Pflug. Lebensernte eines Weltbürgers' p.90.
2. SA Heilbronn, Personal files ; Bruckmann - P47-1,P47-2.
3. Details of election campaign in T.Heuss, 'Erinnerungen 1905-33' p.54-64.; T.Heuss, 'Friedrich Naumann. Der Mann. Das Werk. Die Zeit' p.323-325.; E.Jäckh, 'Der goldene Pflug'. The left liberals were past masters at winning run-off elections. Indeed, in the 1903 and 1912 Reichstag elections every single left liberal deputy had to go through a second ballot to win a seat.
4. See the campaign leaflet of Naumann's agrarian opponent, Dr. Wolff, which describes, albeit in exaggerated terms, Naumann's 'truly American agitation', with 'hundreds of hirelings in automobiles' and 'numerous testimonies from liberal women, pastors and professors from all corners of the Reich'. ZStA Potsdam, Nachlaß Naumann 90 Na 3 - 221 p.11.
5. James Clark Hunt, 'The People's Party in Württemberg and Southern Germany' p.129. The pro-SPD 'Schwäbische Tagwacht' certainly carried a firm recommendation for Social Democrats to vote for Naumann. ZStA Potsdam Nachlaß Naumann 90 Na 3 - 221 p.9.
6. Naumann had "a stimulating influence on the intellectual life of the whole town" ('Die Hilfe', 18/1/1912) and in 1912, as the official FVP candidate, he was able to increase his vote by 26%, but the SPD vote rose even more impressively (up 30%). In the first round of voting the SPD therefore topped the poll, but Naumann was unexpectedly beaten into third place, receiving a few dozen votes less than the agrarian candidate. The SPD comfortably took the run-off. However Naumann returned to the Reichstag a year later after a by-election victory in Waldeck-Pyrmont, when he beat an anti-semitic in the second ballot (6,593 to 6,327 votes). Naumann owed his narrow victory to Gustav Stresemann, who had appealed to local National Liberals to vote for the FVP in the run-off. Incidentally, Heilbronn supporters helped Naumann's by-election campaign by contributing 1,019 Marks to his fighting fund ('Die Hilfe' 14/8/1913 p.526). See also letter from Naumann to Heuss (28/4/1913) in Nachlaß Naumann 90 Na 3 - 5 p.56.
7. S.Anderson, 'Peter Behrens and the New Architecture of Germany' in: 'Oppositions' 11 (1977) p.63.
8. K.Frampton, 'Modern Architecture. A Critical History' p.110.
9. E.Siepmann & A.Thiekötter (Eds.), 'Packeris und Preßglas' Werkbund - Archiv 16, p.310.
10. Begleitheft zur Ausstellung 'Packeris und Preßglas' (Berlin 1987) p.44.
11. P.Theiner, 'Sozialer Liberalismus und deutsche Weltpolitik..' fails to mention the DWB once in three hundred pages.
12. Naumann's correspondence with Hallgarten (Nachlaß Naumann 90 Na 3 - 147) gives some indication of the politician's debt to the banker, containing a number of requests for money and profuse thanks for services rendered in the past. Some years later Naumann wrote to Hallgarten's son (10/11/1915), confirming that 'in my hardest time he supported and backed me tremendously' (p.32).
13. G.Theodor, 'Friedrich Naumann oder des Prophet des Profits'.
14. As Naumann's old friend Martin Rade wrote; "when he left Frankfurt he was no longer the same person who had come here.." in: 'Die Verhandlungen des 36. Evangelisch-Sozialen Kongresses' p.91 Nachlaß Naumann 90 Na 3 - 285.
15. F.Naumann, 'National-sozialer Katechismus' in: 'Werke' vol.5 p.199. For

- the NSV see Dieter Düding's book 'Der Nationalsoziale Verein 1896-1903'.
16. F.Naumann, 'Demokratie und Kaisertum' in: 'Werke' vol.2 p.121.
 17. F.Naumann, 'Die Niederlage' in: 'Werke' vol.5 p.299.
 18. F.Naumann, 'Die Zukunft unseres Vereins' in: 'Werke' vol.5 p.314.
 19. F.Naumann, 'Neudeutsche Wirtschaftspolitik' in: 'Werke' vol.3 p.438.
 20. F.Naumann, 'Von wem werden wir regiert ?' in: 'Werke' vol.2 p.396.
 21. For the social composition of the left liberal parties see Chapter One of Alastair Thompson's 1989 Birkbeck College, London, Ph.D. thesis : 'Left Liberals in German State and Society'.
 22. F.Schumacher, 'Selbstgespräche. Erinnerungen und Betrachtungen' p.85.
 23. F.Schumacher ibid. p.85.
 24. K.Junghanns, 'Der deutsche Werkbund' p.12.
 25. Letter Migge to Naumann (18/6/1913) in Nachlaß Naumann 90 Na 3 - 267 p.13.
 26. F.Naumann, 'Die Kunst im Zeitalter der Maschine' in: 'Werke' vol.6 p.194.
 27. F.Naumann ibid. p.196.
 28. F.Naumann, 'Düsseldorfer Industrie-Ausstellung' in: 'Werke' vol.6 p.410.
 29. In a letter to Cäsar Flaischlen (15/2/1911) Naumann writes; "It is quite correct if Dr. Heuss has informed you that I am personally a convinced supporter of the the German script.." Nachlaß Naumann 90 Na 3 - 4 p.36.
 30. F.Naumann, quoted by T.Heuss in 'Friedrich Naumann..' p.257.
 31. Figures quoted by H.Freese in 'Die konstitutionelle Fabrik' p.70.
 32. 'Fabrikantenglück!' (1889), 'Das konstitutionelle System im Fabrikbetriebe' (1903), 'Die Gewinnbeteiligung der Angestellten' (1905), 'Die konstitutionelle Fabrik' (1909) etc. See also H.J.Teuteberg, 'Die Geschichte der industriellen Mitbestimmung in Deutschland' (Tübingen 1961).
 33. G.Freiherr von Pechmann, 'Die Qualitätsarbeit' p.19.
 34. F.Naumann, 'Neudeutsche Wirtschaftspolitik' in: 'Werke' vol.3 p.188.
 35. F.Naumann, quoted by G.v.Pechmann in: 'Die Qualitätsarbeit' p.20.
 36. F.Naumann, 'Die Kunst im Zeitalter der Maschine' in: 'Werke' vol.3 p.190.
 37. F.Naumann, 'Neudeutsche Wirtschaftspolitik' in: 'Werke' vol.3 p.190.
 38. F.Naumann, 'Die Kunst im Zeitalter der Maschine' in: 'Werke' vol.6 p.191.
 39. F.Naumann ibid. p.191-192.
 40. A well-documented confrontation between Hermann Muthesius and the 'Trade Association for the Economic Interests of the Arts and Crafts' is usually cited as the immediate background to the formation of the DWB. The so-called 'Muthesius Affair' flared up as a consequence of the perceived bias against producers of historically styled products at the 1906 Dresden exhibition, and was exacerbated by the 'provocative' appointment of Muthesius to a professorial chair in applied art at the Berlin 'Handelshochschule'. At the 'Trade Association's annual conference in June 1907 a group of progressive manufacturers demonstrated their support for Muthesius by walking out of the hall and announcing their intention to form a new organisation of quality producers and designers. These firms duly made up the hard core of the 'Werkbund', when it was founded four months later. For details of the 'Muthesius Affair' see: J.Heskett, 'Design in Germany 1870-1918'; J.Campbell, 'The German Werkbund'; P.Kallen, 'Unter dem Banner der Sachlichkeit' etc.
 41. F.Naumann, 'Deutsche Gewerbekunst' p.29-30.
 42. F.Naumann ibid. p.44.
 43. F.Naumann ibid. p.31-32.
 44. F.Naumann ibid. p.32.
 45. F.Naumann ibid. p.39.
 46. F.Naumann ibid. p.31.
 47. F.Naumann ibid. p.45.

48. E.Diederichs, 'Leben und Werk' p.195 (from a letter written in 1911).
49. For an account of Diederichs' political views see G.Stark, 'Entrepreneurs of Ideology' Chp.3.
50. F.Naumann, 'Der ästhetische Mensch und die Politik' in: 'Werke' vol.6 p.543
51. 'Die Veredelung der gewerblichen Arbeit..Verhandlungen des DWB zu München am 11. und 12. Juli 1908.' p.71.
52. W.Gropius in letter to K.Junghanns (1963) quoted by Junghanns in 'Der Deutsche Werkbund' p.175.
53. H.Waentig, 'Wirtschaft und Kunst' p.406-408.
54. H.Waentig ibid. p.407.
55. See: DWB Jahresbericht 1908-09 p.16 (K.E.O.Archiv DWB/330-1).
Verhandlungsbericht DWB 2.Jahresversammlung zu Frankfurt am Main..1909 p.20-23 (Werkbund-Archiv).
56. Verhandlungsbericht 2.Jahresversammlung ibid. p.22.
57. A.Vetter, 'Die staatsbürgerliche Bedeutung der Qualitätsarbeit', 'Dürerbund Flugschriften' 87, 1911.) p.8.
58. A.Vetter ibid. p.7.
59. 'Die Veredelung der gewerblichen Arbeit..' Verhandlung des DWBs zu München am 11. und 12. Juli 1908. p.170.
60. Letter DWB to Karl Ernst Osthaus 10.September 1909 (K.E.O.Archiv DWB 1/7).
61. H.Pudor, 'Deutsche Qualitätsarbeit' p.48.
62. H.Pudor ibid. p.3.
63. R.Pantzer, 'Zur Frage der Qualitätsverfeinerung oder Entfeinerung unseres Exports' p.60.
64. R.Pantzer ibid. p.63.
65. Endell made his remark at the DWB's 7th annual conference in Cologne (July 4th 1914). Printed in 'Die Werkbund-Arbeit der Zukunft..und Aussprache darüber' p.58.
66. H.Wolff, 'Die volkswirtschaftlichen Aufgaben des DWB' in: 'Die Durchgeistigung der deutschen Arbeit' (Werkbund Yearbook 1912) p.88.
67. The contribution of the 'Werkbund' circle to Heilbronn is at least recognised in the town's street-naming policy, with Naumann, Jäckh, Heuss, Bruckmann and Beutinger all being honoured in this way.
68. According to Beutinger's son Erik (born 1906), Emil Beutinger knew Bruckmann 'very well'. (Letter to the author, 7/8/1989).
69. SA Heilbronn, Personal files ; Beutinger - P 28/1. Quote from 'Neckar Zeitung' 9/7/1921.
70. SA Heilbronn, Personal files ; Beutinger - P 28/2. Quote from 'Heilbronner Stimme' 24/10/1957.
71. SA Heilbronn, Personal files ; Beutinger - P 28/2. Quote from 'Heilbronner Tagblatt' 24/6/1933.
72. F.Naumann preface to J.Fischer, 'Als Arbeiter auf der Weltausstellung'.
73. In 1913 Bosch was the most highly paid individual in Württemberg, with an annual income of around four million Marks. At this time his personal fortune amounted to some twenty million Marks, thanks largely to the commercial success of the patented Bosch sparkplug. Figures from C-M.Allmendinger, 'Struktur, Aufgabe und Bedeutung der Stiftungen..' p.45.
74. E.Jäckh, 'Der goldene Pflug' p.98.
75. See T.Buddensieg, 'Die Kaiserlich Deutsche Botschaft in Petersburg von Peter Behrens' in: M.Warne (Ed.), 'Politische Architektur in Europa..'
76. E.Jäckh, 'Der goldene Pflug' p.323.
77. By K.Wegner, 'Linksliberalismus im wilhelminischen Deutschland und in der Weimarer Republik', 'Geschichte und Gesellschaft' 4 1978 p.127.
78. H.Muthesius in 'Die Werkbund-Arbeit der Zukunft' p.46.

79. H.Muthesius, 'Die Zukunft der deutschen Form', 'Der Deutsche Krieg : Politische Flugschriften' Heft 50, 1915 p.35.
80. G.Pollack, 'Die gesellschafts- und kulturpolitische Funktion des DWB' p.123.
81. H.Muthesius, 'Der Werkbundgedanke. Seine Grundlagen', 'Deutsche Politik. Wochenschrift für Welt- und Kulturpolitik' 3rd March 1916 p.459.
82. W.Riezler, 'Die Kulturarbeit des Deutschen Werkbundes', 'Weltkultur und Weltpolitik' Deutsche Folge' 7. (1916) p.11.
83. E.Jäckh, 'Werkbund und Mitteleuropa' p.6. Of course, there was nothing new in the concept of 'Mitteleuropa' propagated with such zeal by the DWB leadership after 1914. Bismarck had toyed with similar ideas and lobbying on behalf of the Baghdad railway project at the turn of the century had revealed considerable support in German banking and industrial circles for an expanded German role in the Balkans and the Near East. The 'Mitteleuropäische Wirtschaftsverein' had been vociferous in its agitation for the economic penetration of south eastern Europe since 1904. Indeed, it is intriguing to note that the financial institution most directly involved in the Baghdad railway scheme was the 'Deutsche Bank', with its close links to Naumann's 'Freisinnige Vereinigung', whilst the companies most outspoken in their support of the 'Mitteleuropäische Wirtschaftsverein' included AEG, Bayer and the Norddeutsche Lloyd shipping concern, together with Stresemann's 'Association of Saxon Industrialists'; all later to re-surface in the DWB.
84. E.Jäckh 'Werkbund und Mitteleuropa' p.7.
85. Efforts to present a positive and progressive view of Germany in the states of 'Mitteleuropa' became known in the Naumann circle as 'ethical imperialism', and were seen as vital if the damaging myths of 'sabre-rattling' German barbarians were to be dispelled. The phrase 'ethical imperialism' was first coined by the DWB member Paul Rohrbach, the Naumannites' principal foreign policy expert and a regular contributor to 'Die Hilfe'. See R.Opitz, 'Ideologie und Praxis des deutschen Sozialliberalismus 1917-1933' p.44.
86. E.Beutinger, 'Die künstlerische Gestaltung der Industriebauten', 'Dürerbund Flugschriften' 154 p.30.

NOTES ON CHAPTER FIVE
(Pages 189-239)

1. T.Nipperdey, 'Wie das Bürgertum die Moderne fand' p.85 and p.73.
2. Naumann wrote 'Der deutsche Stil', which Schmidt-Hellerau initially wanted to be called 'Das deutsche Möbel', for the 'Deutsche Werkstätten' (ZStA Potsdam Nachlaß Naumann 90 Na 3 - 4 p.145). Naumann held 2,000 Marks worth of shares in the Garden City project launched by Karl Schmidt-Hellerau (ZStA Potsdam Nachlaß Naumann 90 Na 3 - 136 p.1-3.).
3. 'Haushaltsplan für das Geschäftsjahr 1912-13' DWB Accounts in K.E.O.Archiv DWB 1/324.
4. SA Heilbronn, Personal files ; Bruckmann - P 47/1. J.Fischer, 'Peter Bruckmann und der Werkbund' in 'Heilbronner Chronik' 4/4/1922.
5. P.Bruckmann quoted by Otto Haupt in 'Geheimrat Dr.Dr. Peter Bruckmann - Heilbronn. Ein Pionier der Wirtschaft, Politik und Kunst. Die Ansprachen bei der Gedenkstunde anlässlich seines 100. Geburtstages am 13. Januar 1965 im Großen Ratsaal der Stadt Heilbronn' p.14-15.
6. Oberbürgermeister Meyle, Heilbronn, *ibid.* p.5-6.
7. 'Bahlsen 1889-1964' (H.Kessler) p.11.
8. 'Ein Brief von Pfarrer Traub' in: 'Leibniz Feldpost' 15/10/1916 p.3. (Bahlsen-Archiv).
9. 'Menschlich denken' in: 'Leibniz Blätter' 15/6/1912 p.2. (Bahlsen-Archiv).
10. 'Persönliches Leben' in: 'Leibniz Blätter' 9/8/1913 p.2. (Bahlsen-Archiv).
11. 'Erziehung zur Schönheit' in: 'Leibniz Blätter' 1/6/1912 p.1. (Bahlsen-Archiv).
12. T.Heuss, 'Robert Bosch. Leben und Leistung' p.141-142 and p.201-203.
13. T.Heuss *ibid.* p.609.
14. C.Matschoß (Ed.), 'Robert Bosch und sein Werk' p.52.
15. C.Matschoß (Ed.) *ibid.* p.9.
16. T.Heuss, 'Robert Bosch..' p.703.
17. C.Matschoß (Ed.) 'Robert Bosch..' p.18.
18. R.Bosch, 'Lebenserinnerungen' (unpubl.1921 manuscript) quoted by J.Mulert, 'Erfolgsbeteiligung und Vermögensbildung der Arbeitnehmer bei der Firma Robert Bosch zwischen 1886 und 1945' in: 'Tradition' 1985 (30) 1 p.4.
19. C-M.Allmendinger, 'Struktur, Aufgabe und Bedeutung der Stiftungen..' p.85.
20. T.Heuss, 'Robert Bosch..' p.313.
21. J.Mulert, 'Erfolgsbeteiligung..' p.20.
22. 'Frankfurter Zeitung' 1/2/1913, quoted in J.Mulert, 'Erfolgsbeteiligung..' p.7.
23. T.Heuss, 'Robert Bosch..' p.297.
24. H.Borst, 'Wie ich Sammler wurde..' p.9.
25. H.Borst *ibid.* p.24.
26. J.Mulert, 'Erfolgsbeteiligung..' p.6.
27. 'Fagus GmbH zu Alfeld', in: 'Alfelder Kreiszeitung' 11/4/1911 p.2.
28. W.Barner, 'Carl Benscheidt d.A. 1858-1947' p.3.
29. In a letter to the author, 15/8/1988.
30. C.Benscheidt, 'Das "Privatinteresse" am Alfelder Bauverein und der Alfelder Bürgermeister Dr. Hottenrott. Ein Wort zur Aufklärung und Rechtfertigung' (1905); 'Zur Abwehr und Aufklärung. Kritische Streiflichter auf das Alfelder Stadtreiment' (1908); 'Herr Senator Strobell. Eine Erwiderung auf dessen Broschüre - "Die Benscheidtsche Kampfesweise im Tageslicht"' (1908).

31. K.Wilhelm, 'Walter Gropius, Industriearchitekt' p.62-65.
32. K.Wilhelm ibid. p.64.
33. K.Wilhelm ibid. p.63.
34. K.Wilhelm in: W.Herzogenrath, D.Teuber, A.Thiekötter (Eds.), 'Der westdeutsche Impuls. Die DWB Ausstellung Köln 1914' p.146.
35. 'Neue Fabrikanlage im Industriestädtchen Alfeld a.L.', in: 'Alfelder Kreiszeitung' 16/11/1910. p.2.
36. C.Benscheidt quoted by H.Weber, 'Walter Gropius und das Faguswerk' p.30.
37. W.Gropius quoted by H.Weber ibid. p.43.
38. See R.Banham, 'A Concrete Atlantis. U.S. Industrial Building and European Modern Architecture'. Daniel Nelson writes that the United Shoe Machinery plant was built in 1903-4, and was the first major factory to be built with reinforced concrete in the United States. It consisted of "three parallel four-storey concrete buildings, smaller buildings that connected the main structures and a foundry and a forge shop. Windows covered nearly the entire wall space of the three main buildings. The Beverly factory attracted widespread attention and started a trend that spread to other industries in the following years." D.Nelson, 'Managers and Workers' p.16.
39. 'Fagus GmbH zu Alfeld', in: 'Alfelder Kreiszeitung' 11/4/1911. p.2.
40. W.Gropius, 'Die Entwicklung moderner Industriebaukunst' (Werkbund Yearbook 1913) p.20.
41. W.Sombart, quoted by H.Väth-Hinz in 'Odol. Reklame-Kunst um 1900' p.10.
42. W.Schäfer, 'Die DWB Ausstellung in Köln' in: 'Die Rheinlande' 1914 p.302.
43. J.Meier-Graefe, 'Kunstbummel' in: 'Frankfurter Zeitung' 21/7/1914.
44. A.Saager, 'Kunst und Kaufmann' in: 'Die Hilfe' 24/7/1910. p.468.
45. H.Wolff, 'Die volkswirtschaftlichen Aufgaben des DWB' (Werkbund Yearbook 1912) p.88.
46. The Cologne architect Hans Erberich designed the pit-head buildings for the 'Gewerkschaft Barmen' at Sprockhövel (1908-10). The pit had a short life, being purchased by the 'Gewerkschaft Lothringen' in 1916 and closed down eight years due to poor ventilation and flooding. He also worked on coal mine complexes in Rumania and Silesia, and designed benzol extraction plants for a couple of Krupp pits in the Ruhr (Zeche Hannibal, Zeche Hannover). Alfred Fischer (1881-1968), who became a leading figure in coal-mine architecture in the 1920s, built the 'Schachanlage Emil' (**fig.97**), near Essen in 1912-13 (purchased by Mannesmann in December 1912), and the machine hall of the 'Zeche Sachsen' (**fig.98**), near Hamm in 1914 (owned by the Mansfeldsche Gewerkschaft).
47. K.E.Born, quoted by H.Nussbaum in 'Unternehmer gegen Monopole' p.8.
48. See H.Kaelble, 'Industrielle Interessenpolitik..' Also T.Nipperdey, 'Interessenverbände und Parteien in Deutschland vor dem ersten Weltkrieg' in: 'Politische Vierteljahresschrift' 1 1960/61 p.262.
49. See H-P.Ullmann, 'Der Bund der Industriellen'. Also D.Stegmann, 'Linksliberale Bankiers, Kaufleute und Industrielle 1890-1900. Ein Beitrag zur Vorgeschichte des Handelsvertragsvereins' in: 'Tradition' (21) 1976.
50. See H.Nussbaum, 'Unternehmer gegen Monopole' p.58-59.
51. F.Naumann, 'Industrielle Strömungen' in: 'Die Hilfe' (38) 18/9/1913 p.595.
52. 'Handel und Gewerbe' 7/2/1903, quoted in H.Nussbaum 'Unternehmer gegen Monopole' p.156.
53. See S.Mielke, 'Der Hansa-Bund für Gewerbe, Handel und Industrie'. Also D.Stegmann, 'Die Erben Bismarcks'.
54. Quoted by S.Mielke, 'Der Hansa-Bund..' p.32.
55. G.Feldman, 'The large firm in the German industrial system. The MAN, 1900-25' in: D.Stegmann, B.Wendt, P.C.Witt (Eds.), 'Industrielle

Gesellschaft und politisches System'.

56. BdI Yearbook 1908 quoted by H-P.Ullmann, 'Der Bund der Industriellen' p.107.
57. G.Stresemann quoted by H-P.Ullmann ibid. p.107.
58. N.Eich letter to Steinthal 12/12/1918, quoted by H.Pogge von Strandmann in 'Unternehmenspolitik und Unternehmensführung' p.146.
59. See H.Pogge von Strandmann ibid.
60. Verhandlungsbericht 2. Jahresversammlung, p.12. (Werkbund Archiv).
61. 'Kunstgewerbeblatt' NF 20 (1909) p.230.
62. HA Krupp WA IV 1541 V.3361 (DWB-Ausstellung Köln) p.153-4, p.156.
63. The links between the chemical industry and 'Werkbund' architects were maintained in the Weimar republic. In 1919 the Düsseldorf DWB member Emil Fahrenkamp (1885-1966) designed a pill factory for Bayer in Leverkusen. A year later Peter Behrens began work on the headquarters of the Hoechst chemical company near Frankfurt. Then, in 1929-30 Hans Poelzig built the huge Frankfurt home of the IG Farben.
64. Aufruf des 'Vereins zur Veranstaltung der DWB-Ausstellung Köln 1914, e.V.' in: 'Deutsche Bauzeitung' (43) 28/5/1913. p.398.
65. E.Jäckh, '5. Jahresbericht des DWBs' (in Werkbund Yearbook 1913) p.105.
66. J.Wilden, 'Der Werkbund-Gedanke in der rheinisch-westfälischen Industrie' in: 'Kölnische Zeitung' 14/7/1926 (Abend Ausgabe).

NOTES ON CHAPTER SIX
(Pages 240-271)

1. A.Behne, 'Kritik des Werkbundes' in: 'Die Tat' 9/5 (1917/18) p.430.
2. For the 'Deutschnationale Handlungsgehilfen-Verband' see Iris Hamel's book 'Völkischer Verband und nationale Gesellschaft. Der DHV 1893-1933.' The organisation was founded in 1893 and by 1913 had 148,000 members. It evolved from being a small anti-semitic grouping to become Germany's largest white-collar union.
3. B.Rauecker, 'Nochmals zur 'Kritik des Werkbundes' in: 'Die Tat' 9/10 (1917/18) p.887.
4. J.A.Lux, 'Die Kunstindustrie und das Qualitätsproblem' in: 'Die neue Zeit' 27/1 (1909) p.769.
5. H.Sperber, in 'Vorwärts' 15/6/1912, quoted by T.Buddensieg in 'Industriekultur' p.41.
6. R.Breuer, 'Die Breslauer Ausstellung' in: 'Die Hilfe' 22 (1913) p.347.
7. 1908, issue 1, on the Muthesius controversy ; 1911, issue 15, on Bruno Paul, also an article on Hamburg workers and furniture made in Hellerau ; 1912, issue 16, on workers' furniture exhibition ; 1913, issue 19 on Richard Riemerschmid ; 1914, issue 14 on the transport display at the DWB exhibition, and issue 20, on conferences debates at the same event ; 1916, issue 22, Adolf Behne on architecture. For the 'Sozialistische Monatshefte' in general, see Roger Fletcher's 'Revisionism and Empire. Socialist Imperialism in Germany, 1897-1914'.
8. R.Breuer in 'Die Veredelung der gewerblichen Arbeit' p.170.
9. 'Denkschrift über die Organisation und die Arbeit des DWB..' (1907) in K.Junghanns, 'Der Deutsche Werkbund..' p.148.
10. T.Heuss, 'Der Hausrat des Proletariers' in: 'Die Hilfe' 20 (1911) p.318.
11. K.Junghanns, 'Der Deutsche Werkbund..' p.38.
12. T.Heuss, 'Der Hausrat des Proletariers' in: 'Die Hilfe' 20 (1911) p.318.
13. 'Deutsche Arbeiter über Brüssel' in: 'Der Kunstwart' 24/15 (1911) p.212-3.
14. K.E.Osthaus, in a letter to E.Joel 9/2/1916, quoted in H.Hesse-Frielinghaus (Ed.), 'Karl Ernst Osthaus - Leben und Werk'. p.335.
15. J.A.Lux, in 'Die Werkkunst' 1 (1905-06) p.263, quoted by E.Haase in 'Zur Ideologiefunktion der ästhetischen Produkt- und Umweltgestaltung..' p.71.
16. An anonymous textile worker from Forst, quoted in A.Levenstein, 'Die Arbeiterfrage' p.142
17. Quoted by T.Buddensieg in preface to H.Rogge's 'Fabrikwelt um die Jahrhundertwende' p.28.
18. 'Wenn man den Geist der Arbeit erfaßt', 'Die Hilfe' 8 (1902), issues 43-46.
19. A.Pohlmann, 'Die Hilfe' 8/43 (1902) p.6.
20. S.Haber, 'Efficiency and Uplift' p.18.
21. S.Haber ibid. p.19.
22. C.Maier, 'The Factory as Society. Ideologies of Industrial Management' in: R.Bullen, H.Pogge von Strandmann, A.Polonsky (Eds.), 'Ideas into Politics' p.149.
23. 'Wenn man den Geist der Arbeit erfaßt' in: 'Die Hilfe' 8/46 (1902) p.7.
24. T.Barth, 'Amerikanische Eindrücke'.
25. D.Nelson, 'Managers and Workers. Origins of the New Factory System..'p.33.
26. R.Banham, 'A Concrete Atlantis..' introduction.
27. Quoted by R.Banham ibid. p.22.
28. S.Haber, 'Efficiency and Uplift' p.21.
29. F.W.Taylor quoted by C.Maier in 'Between Taylorism and Technocracy :

- European ideologies and the vision of industrial productivity in the 1920s', in: 'Journal of Contemporary History' 5 (1970) p.32.
30. F.W.Taylor quoted by R.Bendix in 'Work and Authority in Industry'.p.278.
 31. C.Maier, 'Between Taylorism and Technocracy..' p.31.
 32. C.Maier, 'Ideologies of Industrial Management..' p.147.
 33. H.Homburg, 'Anfänge des Taylorsystems in Deutschland vor dem Ersten Weltkrieg. Eine Problemskizze unter besonderer Berücksichtigung der Arbeitskämpfe bei Bosch 1913' in: 'Geschichte und Gesellschaft' 4 (1978) p.170.
 34. H.Borst, 'Das sogenannte Taylor-System..' lecture given to the Württemberg branch of the VDI on 15th January 1914. p.23-24.
 35. H.Borst *ibid.* p.24.
 36. F.Naumann, 'Die menschliche Maschine' in: 'Die Hilfe' 22 (1913) p.438-439.
 37. H.Borst, 'Mechanisierte Industriearbeit, muß sie im Gegensatz zu freier Arbeit Mensch und Kultur gefährden?' in: H.Borst & W.Hellpach, 'Das Problem der Industriearbeit'. Berlin 1925 p.28.
 38. W.Hellpach, 'Die Erziehung der Arbeit' in: H.Borst & W.Hellpach, 'Das Problem der Industriearbeit'. p.52.
 39. The Daimler experiments failed in the difficult economic climate of the early 1920s, but it is interesting to note that when Volvo opened a new plant at Kalmar in the 1970s, it introduced a similar form of 'group manufacturing', with teams of workers rather than single operatives tackling various stages of the assembly process. Volvo thereby became the first automobile producer to make a successful break with the flow line principles established by Henry Ford before the First World War. Group manufacture is said to balance the slower throughput with greater worker satisfaction and quality control. See 'Architectural Design' 3/1977 p.181.
 40. W.Hellpach, in H.Borst & W.Hellpach, 'Das Problem der Industriearbeit' p.61-62.
 41. W.Hellpach *ibid.* p.65.
 42. For details of strike at Bosch see H.Homburg 'Anfänge des Taylorsystems in Deutschland..', U.Stolle, 'Arbeiterpolitik im Betrieb..' and T.Heuss, 'Robert Bosch. Leben und Leistung.'
 43. H.Homburg *ibid.* p.184. In the following decades the process of de-skilling was to some extent reversed, as a section of the workforce became 're-skilled' as technicians and machine supervisors.
 44. B.Rauecker, 'Über einige Zusammenhänge zwischen Qualitätsarbeit und Sozialpolitik' in: 'Kunstgewerbeblatt' NF 24 (1912) p.5.
 45. K.Liebkecht speech 28/4/1910, quoted by G.Pollak, 'Die gesellschafts- und kulturpolitische Funktion des Deutschen Werkbundes..' note 324.
 46. K.Liebkecht speech 15/3/1911, quoted by G.Pollak *ibid.* p.134.
 47. R.Günter, 'Krupp in Essen' in: M.Warnke (Ed.), 'Das Kunstwerk zwischen Wissenschaft und Weltanschauung' p.138.
 48. See T.Engelhardt, 'Menschen nach Maß' in: 'Leben und arbeiten im Industriezeitalter' Germanisches Nationalmuseum exhibition catalogue 1985 p.291.
 49. K.E.Osthaus, 'Ein Fabrikbau von Peter Behrens' in: 'Frankfurter Zeitung' 10/2/1910.
 50. J.Posener, 'Berlin auf dem Wege zu einer neuen Architektur'. p.389.

NOTES ON CHAPTER SEVEN
(Pages 272-308)

1. For details of Delmenhorst's industrial development see H.Lübbing, 'Delmenhorsts Aufstieg zur Industriestadt', Delmenhorster Schriften - Heft 1.; also E.Grundig, 'Geschichte der Stadt Delmenhorst 1848-1945' volumes 3-4 (typewritten manuscript in SA Delmenhorst); G.von Lindern, 'Kleine Chronik der Stadt Delmenhorst'; and H.Saebens, 'Delmenhorst. Werden einer Wirtschaftsstadt.'
2. For the history of the NW&K see S.Auffarth & F.Stracke, 'Die Nordwolle. Neues Leben für ein Industriedenkmal', Delmenhorster Schriften - Heft 10. p.17-21.
3. The growth of the linoleum industry in Delmenhorst is recounted by G.von Lindern, 'Die Delmenhorster Linoleum-Industrie' in: 'Delmenhorster Heimatjahrbuch 1932 ; E.Dürks, 'Die deutsche Linoleum-Industrie, unter besondere Berücksichtigung der Fabriken in Delmenhorst' (Heidelberg Ph.D 1919); H.G.Bodenbender, 'Linoleum-Handbuch. Ein praktischer Führer für Industrie und Handel', 1931.
4. H.Lübbing, 'Delmenhorsts Aufstieg zur Industriestadt' p.11-12.
5. Statistics from H.Saebens, 'Delmenhorst. Werden einer Wirtschaftsstadt'. p.13.
6. From H.Lübbing, 'Delmenhorsts Aufstieg zur Industriestadt' p.19.
7. Quoted by E.Grundig, 'Geschichte der Stadt Delmenhorst' p.833.
8. For Koch's time as Mayor of Delmenhorst see in particular H.Ivers, 'Erich Koch Wesers politische Tätigkeit als Bürgermeister von Delmenhorst' (typewritten manuscript in SA Delmenhorst).
9. See E.Grundig, 'Geschichte der Stadt Delmenhorst' p.790-796.
10. Most notably Wolfgang Krabbe, Wolfgang Hofmann and Jürgen Reulecke. See, for instance, H.Croon, W.Hofmann, G.von Unruh (Eds.), 'Kommunale Selbstverwaltung im Zeitalter der Industrialisierung'.
11. K.Klaus, 'Eine bemerkenswerte Wahl' in: 'Die Hilfe' 16/11/1902 (8,46) p.2-3.
12. K.Klaus ibid. p.3
13. Delmenhorst's town council elections in this period are examined by E.Grundig, 'Geschichte der Stadt Delmenhorst' p.18-21.
14. Quoted by E.Grundig ibid. p.226.
15. A Bonn art historian, Torsten Ziegler, is writing a Ph.D. thesis on the linoleum patterns designed by leading German artists in the first decades of the 20th century.
16. K.Schäfer, 'Die Nordwestdeutsche Kunstaussstellung in Oldenburg' in: 'Die Rheinlande' 1905 p.428-430.
17. H.Fuchs, 'Landes-Ausstellung: Ausstellung der Delmenhorster Linoleumfabrik "Anker-Marke" in: 'Delmenhorster Kreisblatt' 15/8/1905.
18. H-J.Kadatz, 'Peter Behrens. Architekt - Maler - Grafiker' p.40.
19. G.Gericke, in: 'Die Veredelung der Gewerblichen Arbeit im Zusammenwirken von Kunst, Industrie und Handwerk. Verhandlungen des Deutschen Werkbundes zu München am 11. und 12. Juli 1908.' p.23.
20. 'Wanderausstellung des Deutschen Museums für Kunst in Handel und Gewerbe. Newark-Chicago-Indianapolis-Pittsburgh-Cincinnati-St.Louis.' Catalogue, Hagen 1912-13.
21. The Karl Ernst Osthaus Archiv in Hagen retains the entire correspondence between the 'Anker' company and the 'German Museum for Art in Trade and Commerce' (K.E.O.Archiv A/351). It amount to some 72 pages for the years 1909-1914; a total which gives some indication of the Delmenhorst

- company's involvement in the enterprise. See K.E.O.Archiv A/351 p.26 for letter from Osthaus to Gericke, in which he invited the industrialist to join the Management Committee (1/8/1911).
22. K.E.O.Archiv A/351 p.22 (18/7/1911).
 23. K.E.O.Archiv DM/10-1 (29/6/1911) 'Anker'; DM/11-1 (13/9/1911) 'Hansa'; DM/8-1 (14/11/1913) 'Schlüssel'.
 24. N.Aschenbeck, 'Romantische Sachlichkeit. Dokumentation und Bewertung des Werks und der architektur-historischen Bedeutung des Bremer Architekten Heinz Stoffregen, unter besonderer Berücksichtigung seiner Zusammenarbeit mit Delmenhorster Industrie.' (typewritten manuscript in SA Delmenhorst) p.23.
 25. U.Henning, in: A.Thiekötter & E.Siepmann (Eds.) 'Packer und Preßglas. Von der Kunstgewerbebewegung zum Deutschen Werkbund' p.311-312.
 26. 'Delmenhorster Kreisblatt' 14/1/1909. See also 'Bismarckdenkmal auf dem Bookholzberg' in: 'Delmenhorster Kreisblatt' 10/1/1909 and 'Aufruf' 13/1/1909.
 27. See L.Tittel, 'Monumentaldenkmäler 1870-1918', and H.-W.Hedinger 'Bismarck-Denkmäler und Bismarck-Verehrung' in: E.Mai & S.Waetzold (Eds.) 'Kunstverwaltung, Bau- und Denkmalpolitik im Kaiserreich'.
 28. For example H.Muthesius in 'Stilarchitektur und Baukunst', or P.Schultze-Naumburg in 'Die Entstellung unseres Landes'.
 29. 'Deutsche Bauzeitung' 8/8/1908 p.440.
 30. Bundesarchiv Nachlaß 12 Koch-Weser/175. 'Bedingungen und Programm für den Wettbewerb zur Erlangung von Skizzen für die Gestaltung und Bebauung des Marktplatzes und für den Neubau eines Rathauses und Spritzenhauses zu Delmenhorst.' See also SA Delmenhorst, File XIX. 13.652 100/2 (Rathaus) p.9. List of judges.
 31. SA Delmenhorst, File XIX. 13.652 100/2 (Rathaus) p.12. Letter from Koch to Rehorst.
 32. SA Delmenhorst, File XIX. 13.652 100/2 (Rathaus) p.27.
 33. SA Delmenhorst, File XIX. 13.652 100/2 (Rathaus) p.38. ('Urteil des Preisgerichts').
 34. SA Delmenhorst, File XIX. 13.652 100/2 (Rathaus). p.33. (Memorandum from Koch to the members of the 'Gesamtstadtrat').
 35. For further details see E.Mai, J.Paul, S.Waetzold (Eds.), 'Das Rathaus im Kaiserreich'. The only other town halls built in Wilhelmine Germany to reflect reformist architectural ideas were Hermann Billing's complex at Kiel (1904-11) and Pfeifer & Großmann's town hall at Mülheim an der Ruhr (1911-16).
 36. W.Schäfer, 'Rathäuser' in: 'Der Kunstwart' 22/1-5 (1908) p.305-6.
 37. W.Schäfer, 'Ein bürgerlicher Rathausbau' in: 'Die Rheinlande' 8/2 (1908) p.149-50.
 38. The quotes from the town council meeting are all from the 'Delmenhorster Kreisblatt' 16/1/1909.
 39. Quoted by E.Grundig, 'Geschichte der Stadt Delmenhorst' p.834.
 40. Story told in J.Mehrtens (Ed.), 'Alt Delmenhorst'.
 41. Report of opening festivities in 'Delmenhorster Kreisblatt' 1/5/1910.
 42. Quoted by E.Grundig, 'Geschichte der Stadt Delmenhorst' p.834-5.
 43. 'Der Wasserturm zu Delmenhorst' in: 'Der Industriebau' vol.4 (1913) p.29.
 44. K.E.O.Archiv A/351 p.37. (27/10/1911).
 45. E.Grundig, 'Geschichte der Stadt Delmenhorst' p.835.
 46. The town hall is described in more detail by K.Dillschneider in 'Das Delmenhorster Rathaus'. Also see N.Aschenbeck 'Romantische Sachlichkeit..'
 47. N.Aschenbeck *ibid.* p.37-38.

48. E.Högg in the 'Delmenhorster Kreisblatt' 26/1/1909.
49. W.Hofmann, 'Zwischen Rathaus und Reichskanzlei..' p.52. Other mayors who left a town hall as a 'memorial to themselves' included the National Liberals Tramm (Hanover), Adickes (Frankfurt) and the conservative Beutler (Dresden).
50. Quoted by N.Aschenbeck, 'Romantische Sachlichkeit..' p.36.
51. See J.H.Müller (Ed.), 'Der westdeutsche Impuls 1900-1914. Die Folkwang-Idee des Karl Ernst Osthaus' pp.184-185, 204-205.
52. See Jahresberichte der Handelskammer für das Herzogtum Oldenburg, 1904-14. The other Delmenhorst linoleum companies also paid reasonable dividends, but usually lower than those given by the 'Anker'.
53. J.Mehrtens (Ed.), 'Alt Delmenhorst' p.184.
54. The NW&K buildings are described by S.Auffarth, 'Die Nordwolle. Neues Leben für ein Industriedenkmal' Delmenhorster Schriften - Heft 10.
55. N.Aschenbeck, 'Romantische Sachlichkeit..' p.26.
56. H.Stoffregen, 'Die neuen Fabrikbauten der Delmenhorster Linoleumfabrik 'Ankermarke'', in: 'Der Industriebau' 3 (1912) p.2.
57. K.E.O.Archiv A/351 p.17. (7/4/1911).
58. Quoted by N.Aschenbeck, 'Romantische Sachlichkeit..' p.27.
59. A.Behne, 'Romantiker, Pathetiker und Logiker im modernen Industriebau' in: 'Preuß. Jahrbücher' vol.154 (1913) p.174.
60. H.Fitger, on Stoffregen in 'Bremische Biographie 1912-1962'.p.507.
61. The 'Werdandibund' was a cultural pressure group with 'völkisch' leanings, involving many members of both the DWB and the 'Heimatschutz' movement. It was led by the academic Friedrich Seeßelberg (1861-1956), and founder members included E.Högg, F.Schumacher, B.Möhring and H.Vogeler. See J.Frecot, 'Der Werdandibund' in: B.Bergius, J.Frecot, D.Radicke (Eds.) 'Architektur, Stadt und Politik' p.37.
62. In 1926 the Delmenhorst linoleum companies became part of the 'Deutsche Linoleum-Werke AG' (DLW), whose headquarters were established at Bietigheim in Württemberg. The over-capacity and duplication of facilities in the Delmenhorst factories inevitably led to a number of changes in the organisation of production, particularly after damage by allied bombers in World War Two. Unfortunately the archival records of the Delmenhorst companies were lost with the demolition of the former DLW administrative building in the town during the late 1970s.
63. Other left liberal mayors to head reformist municipal administrations included Liebetrau (Gotha), Schwunder (Strasbourg), Dominicus (Schöneberg), and Pohlmann (Kattowitz). For further details see A.Thompson, 'Left Liberals in German State and Society' p.151. Thompson writes : "At its best, in theory and practice, left liberal municipal government was one of the few areas where Wilhelmine left liberalism had genuine claims to political glory. Like other areas of left liberal politics, however, this sphere was subject to wide regional variations." (p.152).
64. L.Niethammer, 'Umständliche Erläuterung..'
65. L.Niethammer ibid. p.9. Many other Ruhr communities failed to develop a true urban character or municipal identity in this way. See for instance Heinz Reif's 'Kind der Eisenbahn. Die Enscherstadt Oberhausen vor 1914.' in: L.Niethammer (Ed.), 'Die Menschen machen ihre Geschichte..'

NOTES ON CONCLUSION
(Pages 309-316)

1. For the reconstruction in East Prussia see 'Deutsche Bauzeitung' (48) 18/11/1914 p.771. and 25/11/1914 p. 800. Also 'Der Kunstwart' 28/4 (1914) p.146. and 28/9 (1914) p.91.
2. HA Krupp WA VII f.1101 kd. 87 (Hindenburgprogramm).
3. HA Krupp WA VII f.1101 kd. 71 (Baubüro); WA VII f.1116 kd. 87 (Hindenburgprogramm); WA VII f.1098 kd.68. (Artilleriewerkstätten).
4. HA Krupp WA VII f.1101 kd. 87 p.13 (Hindenburgprogramm).
5. 'Aufruf' published in 'Deutsche Stimmen' 30/47 (24/11/1918). A few years later many of the same names gave their support to the 'Society for the Renewal of Economic Morality and Responsibility' ('Bund der Erneuerung'), founded in July 1920 by the 'Werkbündler' Karl Scheffler. At one stage it was actually intended to fuse the new society with the DWB, which had published Scheffler's 'manifesto' entitled 'Sittliche Diktatur. Ein Aufruf an alle Deutschen', but interest soon waned.
6. On the DDP see R.Opitz, 'Ideologie und Praxis des deutschen Sozialliberalismus'; L.Albertin, 'Liberalismus und Demokratie'; K.Wegner 'Linksliberalismus..'
7. T.Heuss, 'Notizen und Exkurse zur Geschichte des Deutschen Werkbundes' in: H.Ekstein (Ed.), '50 Jahre Deutscher Werkbund'.
8. G.Pollak, 'Die gesellschafts- und kulturpolitische Funktion des Deutschen Werkbundes' p.257/p.261.

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3. Königshütte iron foundry, Beuthen 1798-1802.
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 50. H.W.Kemna ribbon factory, Barmen 1908. Arch. R.Schnell.
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51. Two examples from the 'Heimatschutz' group in Saxony of how to improve the quality of industrial architecture, at little extra cost to the client. In both cases, the top drawing illustrates the plan initially submitted to the authorities, and the bottom drawing shows the 'Heimatschutz' architect's alternative proposal. From 'Deutsche Bauzeitung' (4/12/1909).
52. Podbielskiallee railway station, Berlin 1912-13. Arch. H.Schweitzer. Present condition.
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58. 'Kaffee HAG' factory, Bremen 1906. Arch. H.Wagner. from 'Der Industriebau' 1910.
59. Henkell champagne company headquarters, Wiesbaden-Biebrich 1907-9. Drawing by the architect P.Bonatz. From 'Mitteilungen des Rheinischen Vereins für Denkmalpflege und Heimatschutz' 1910/1.
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NB. All photographs by the author unless otherwise stated.

fig.1

Cromford cotton mill,
Ratingen 1784.
Arch. R.Flügel.

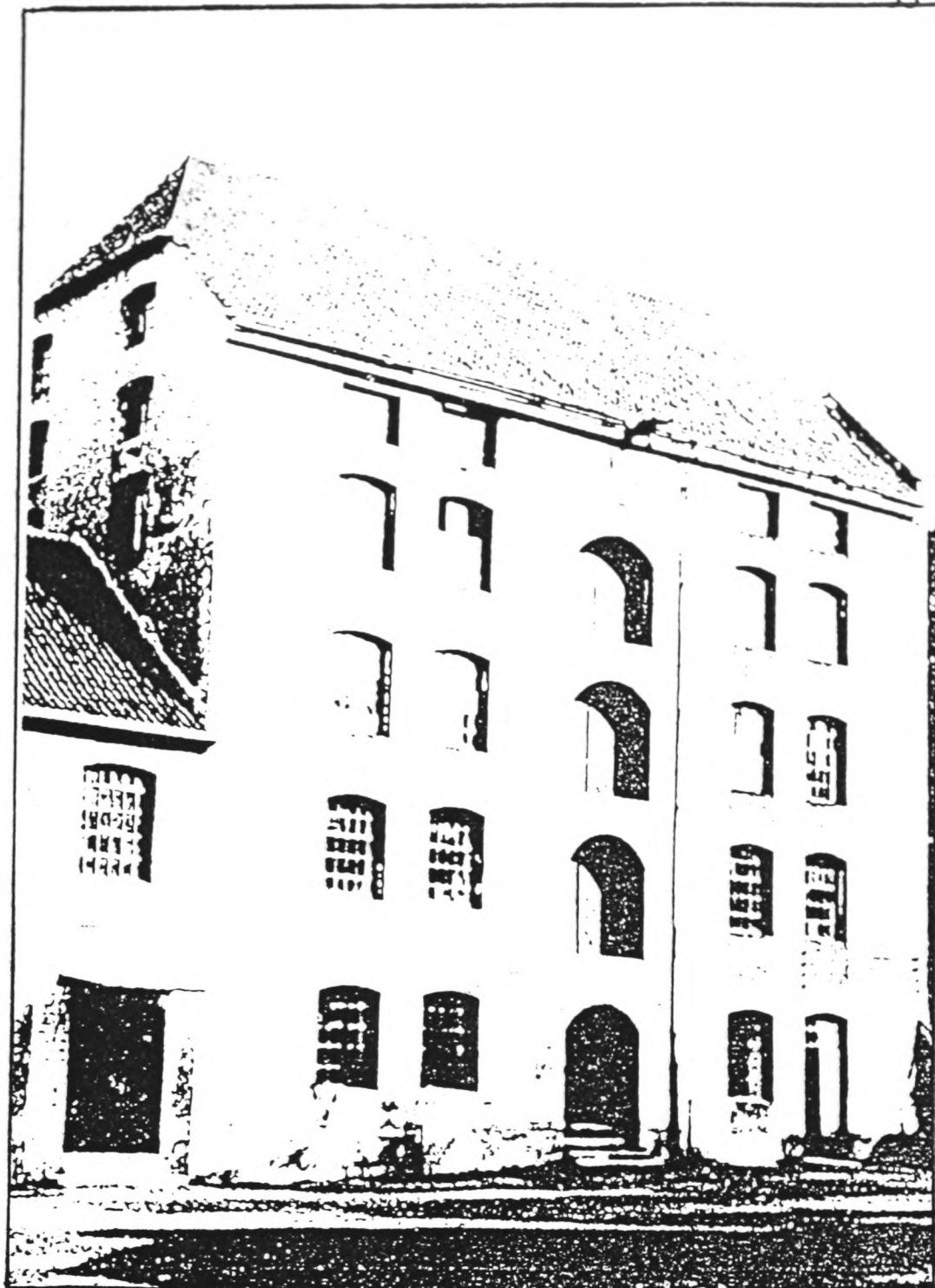


fig.2

Königsborn salt works,
Unna-Afferde 1798-9.
Arch. Bückling.

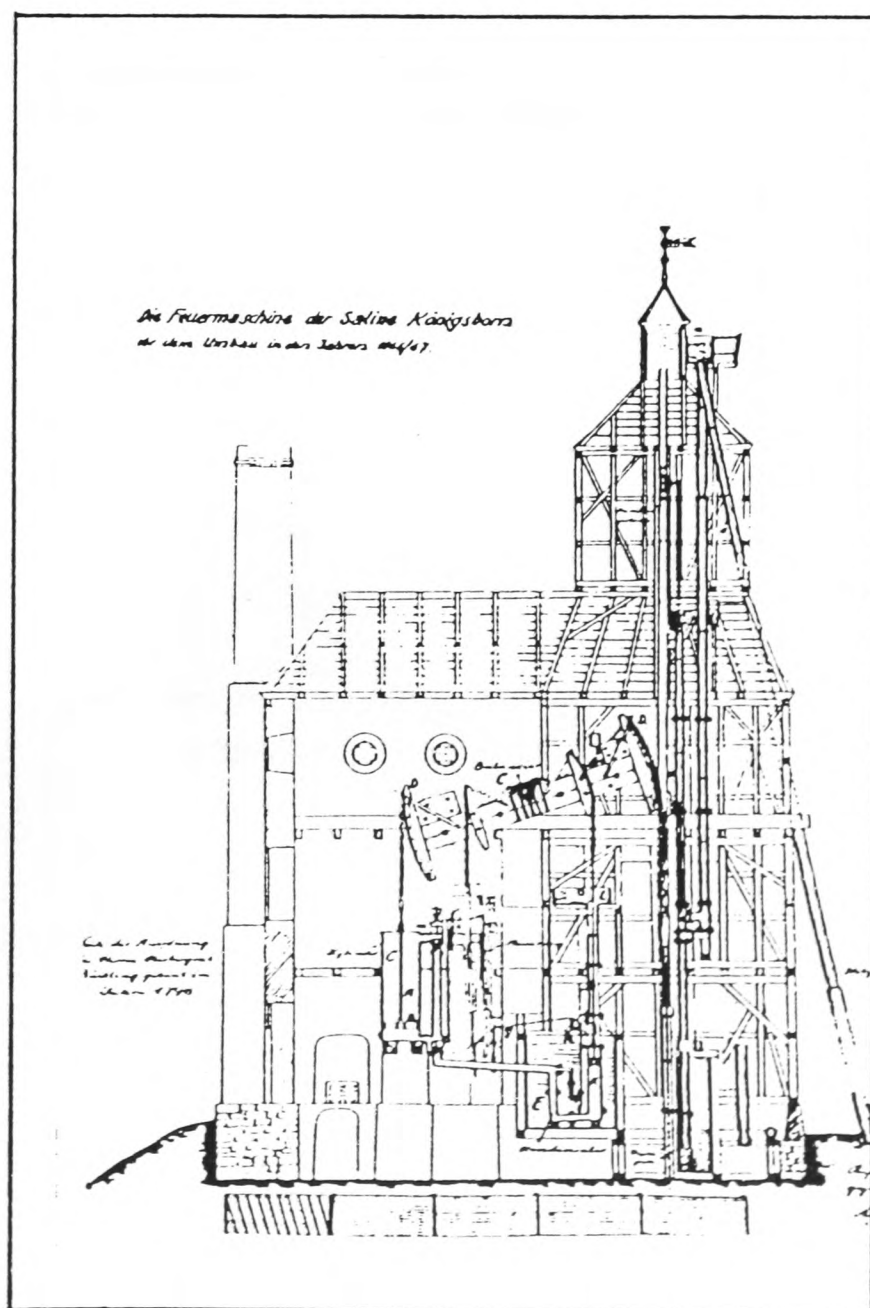
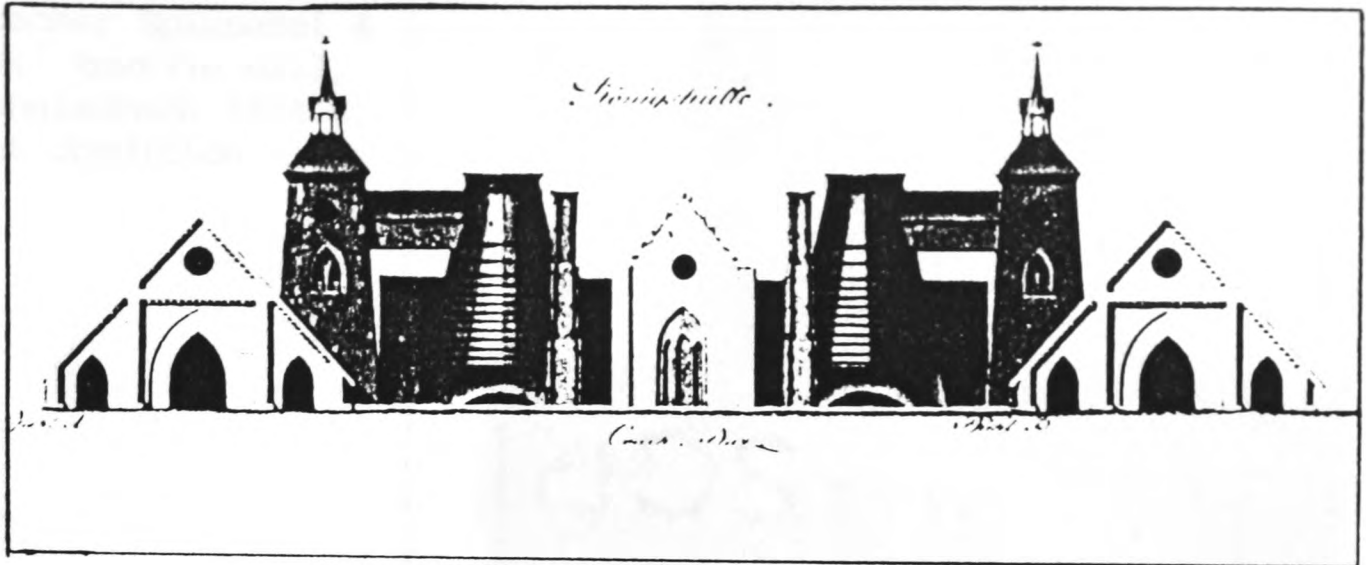


fig.3



Königshütte iron foundry,
Beuthen 1798-1802.

Royal Prussian iron foundry,
Sayn 1826-30. Arch. K.L.Althaus.

fig.4

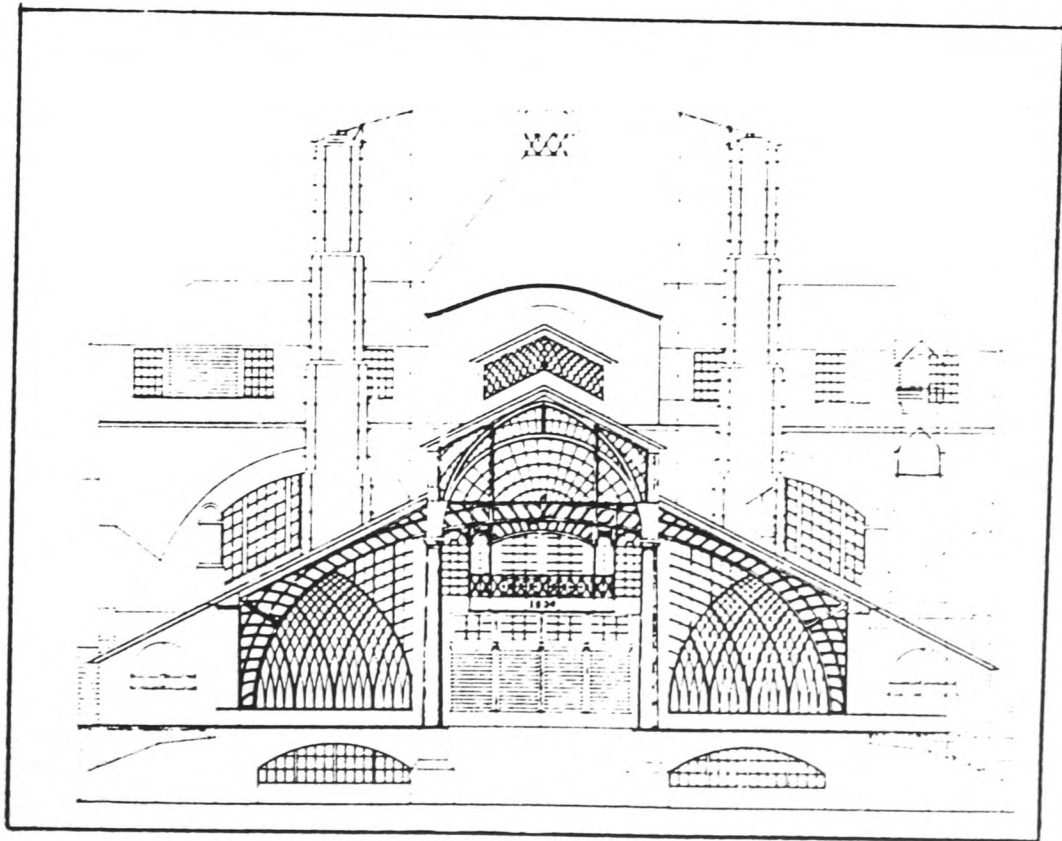
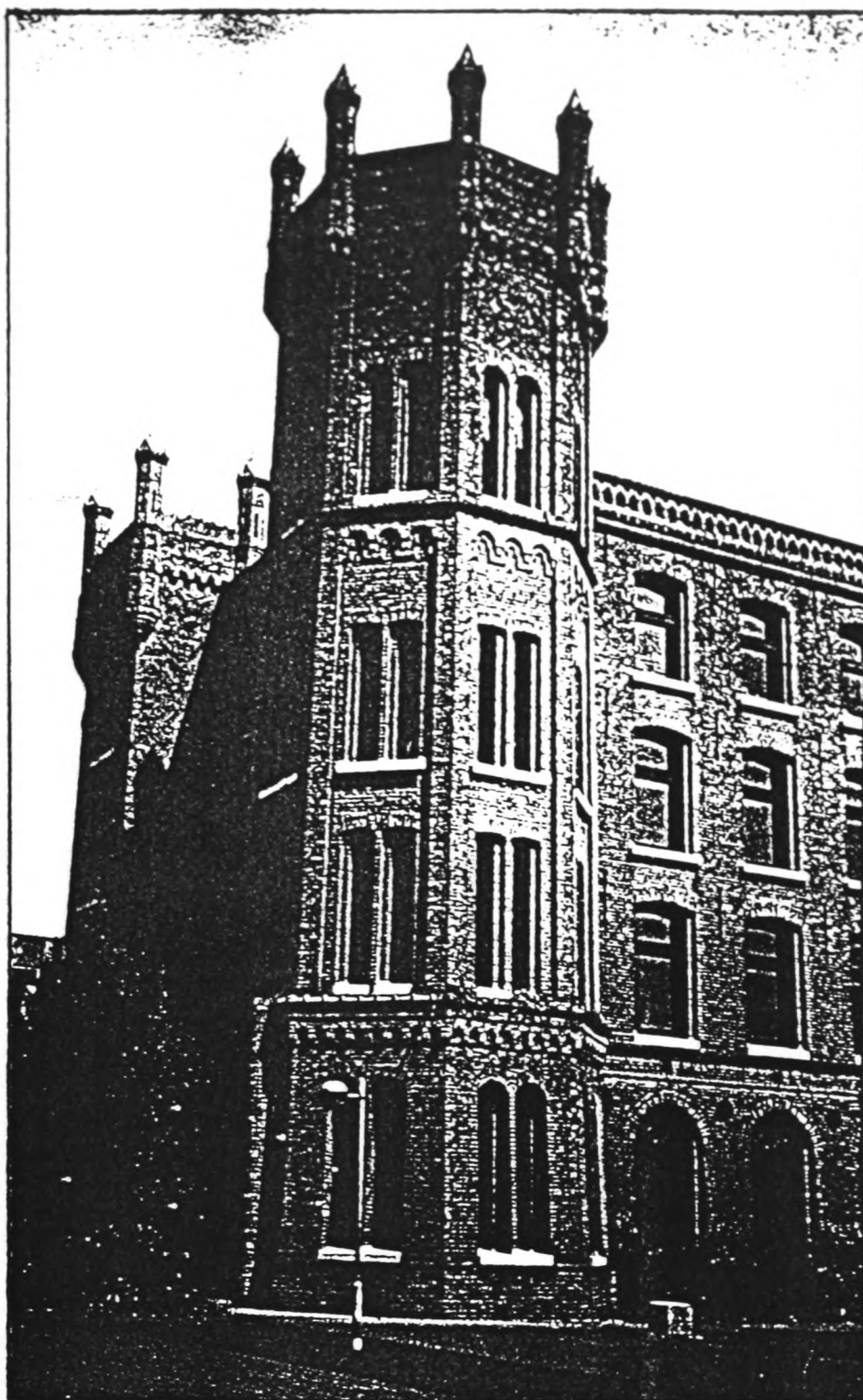


fig.5

'Gladbacher Spinnerei & Weberei' textile mill,
Mönchengladbach 1854-5.
Present condition.



'Ravensberger Spinnerei' textile mill,
Bielefeld 1854-5.

fig.6

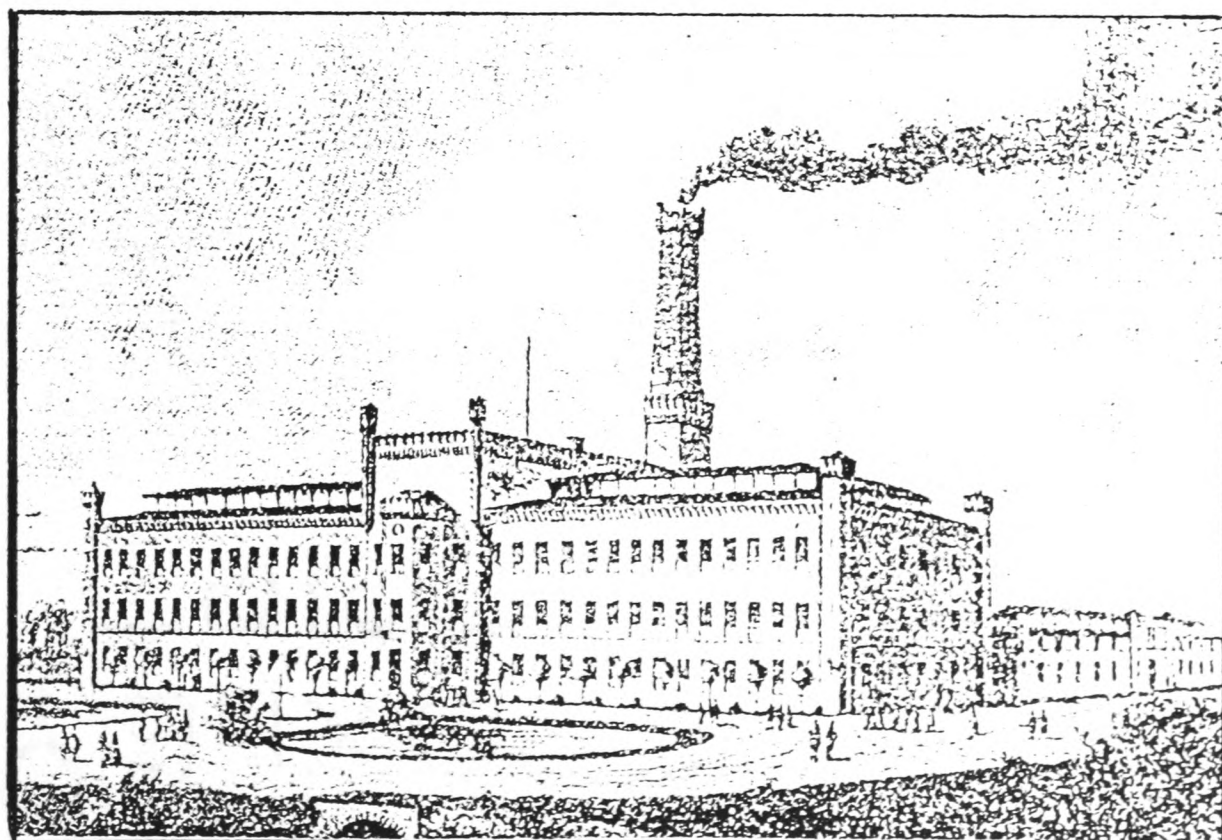
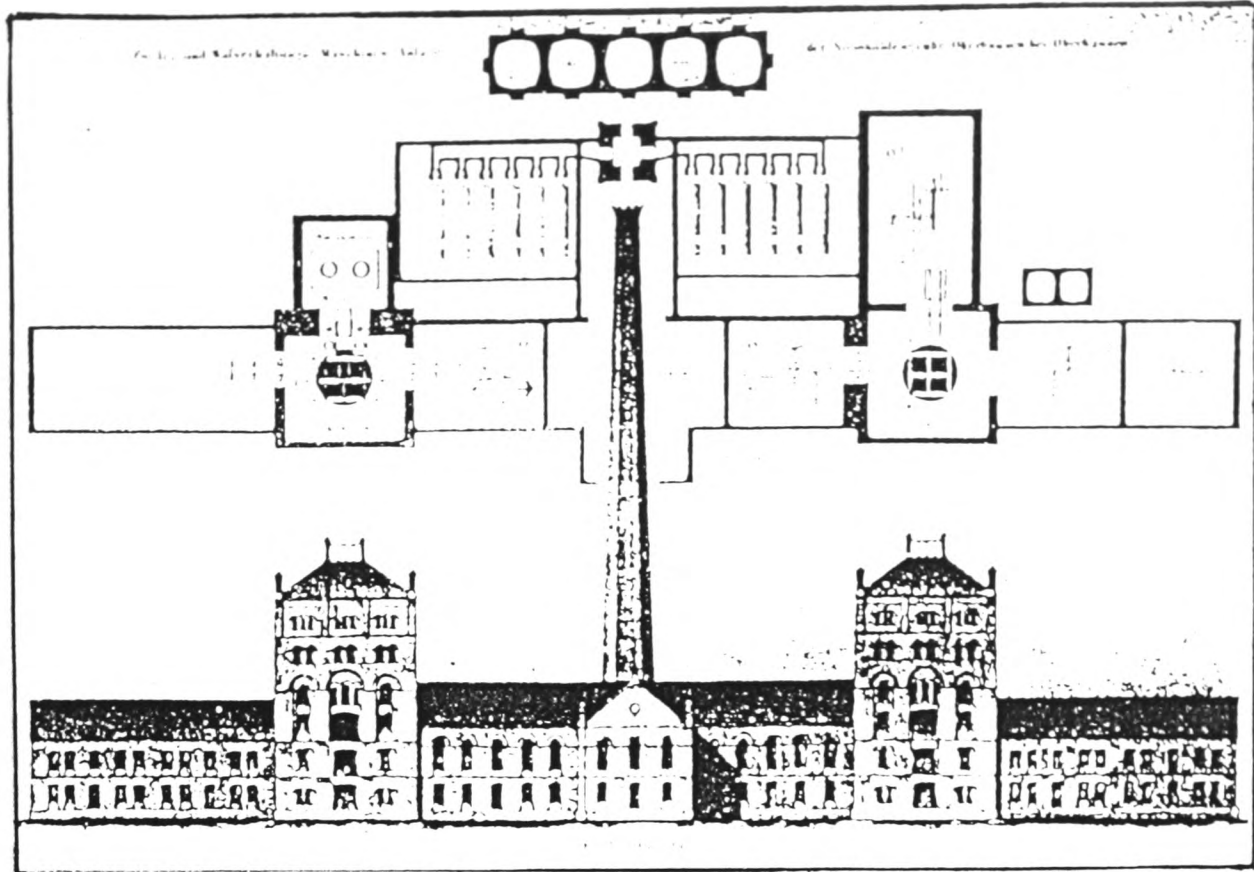


fig.7



'Zeche Oberhausen' pit-head buildings, Oberhausen 1855.

'Malakow' tower at the 'Zeche Westhausen', Dortmund-Bodelschwingh 1873.
Present condition.

fig.8

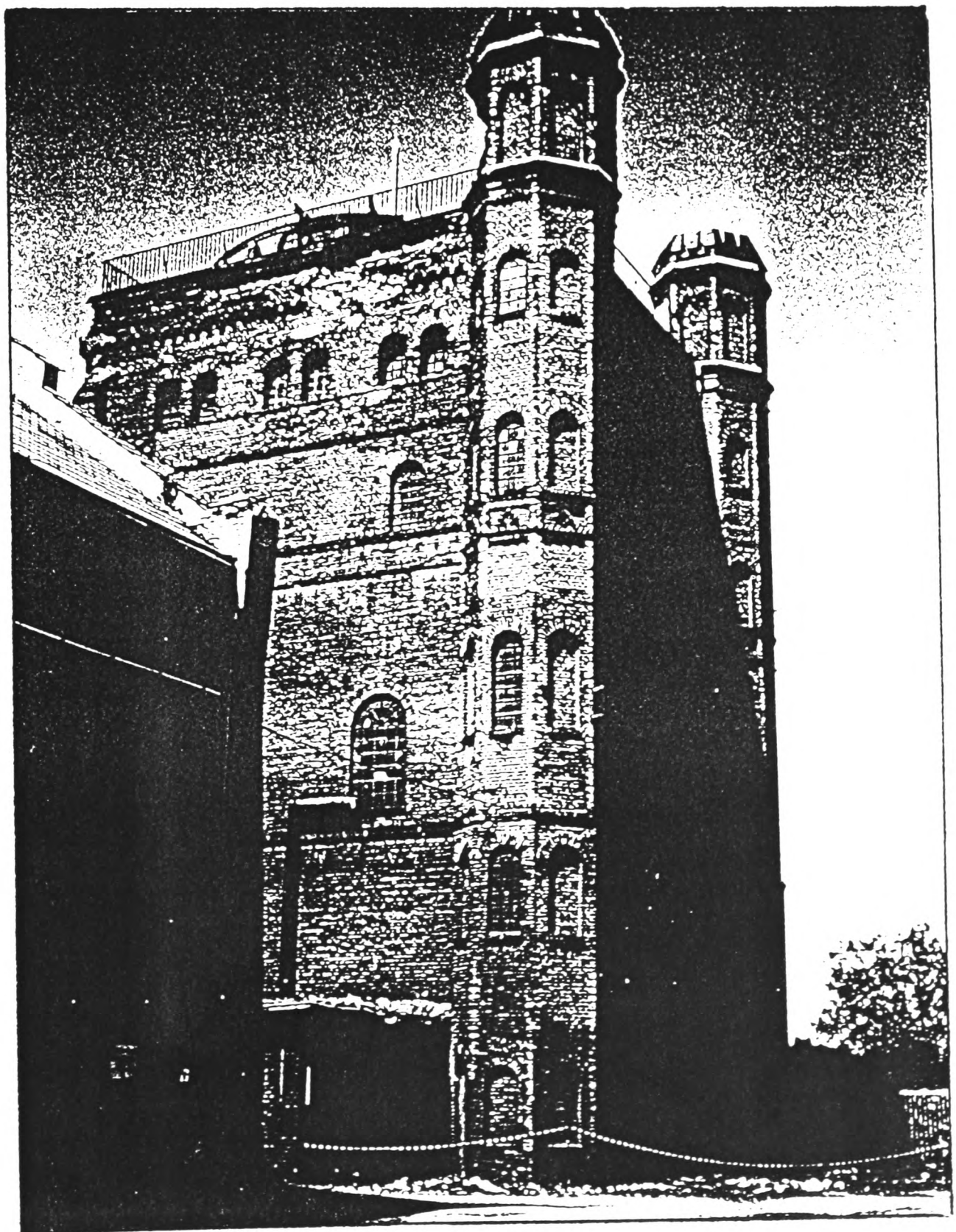
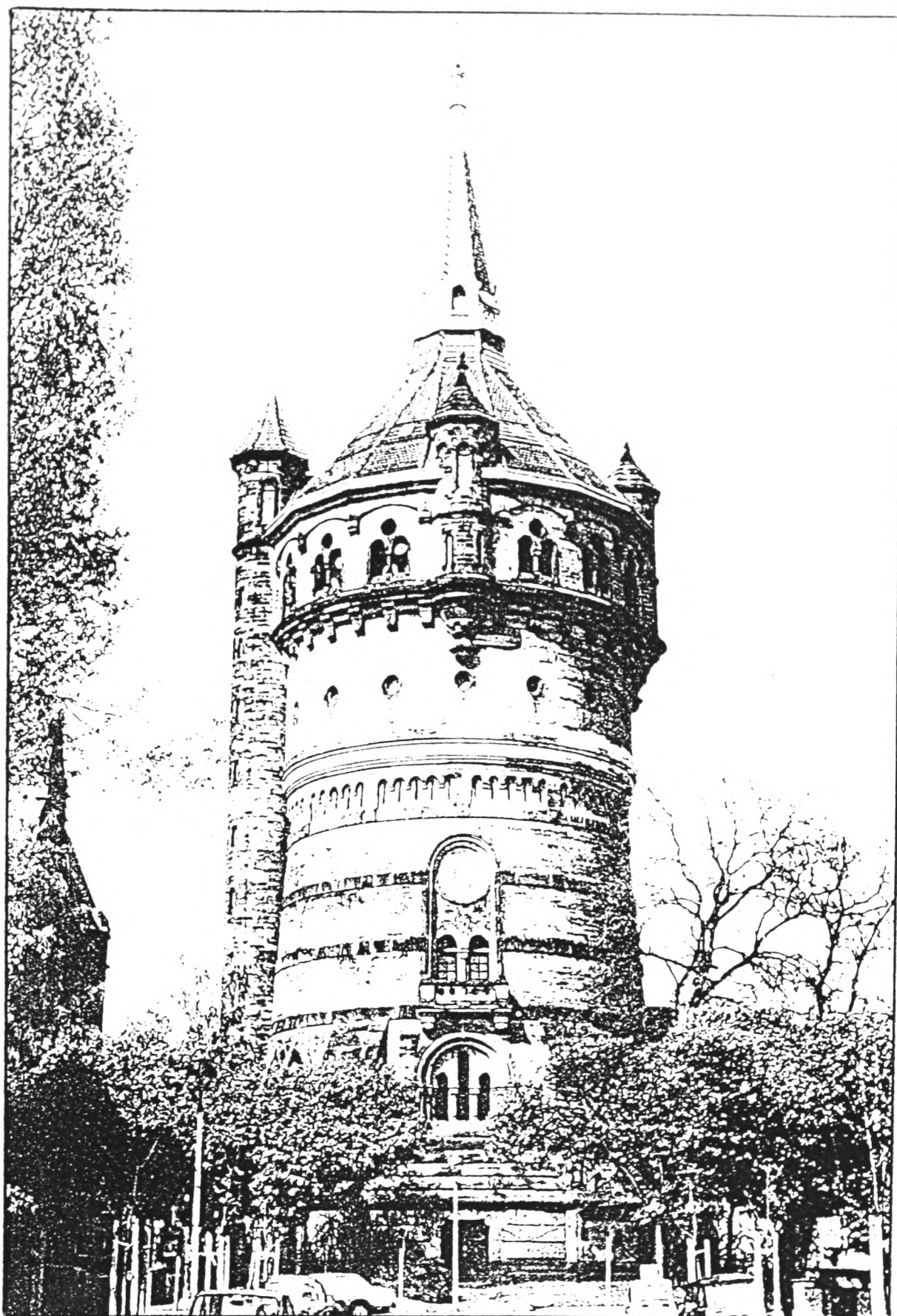


fig.9



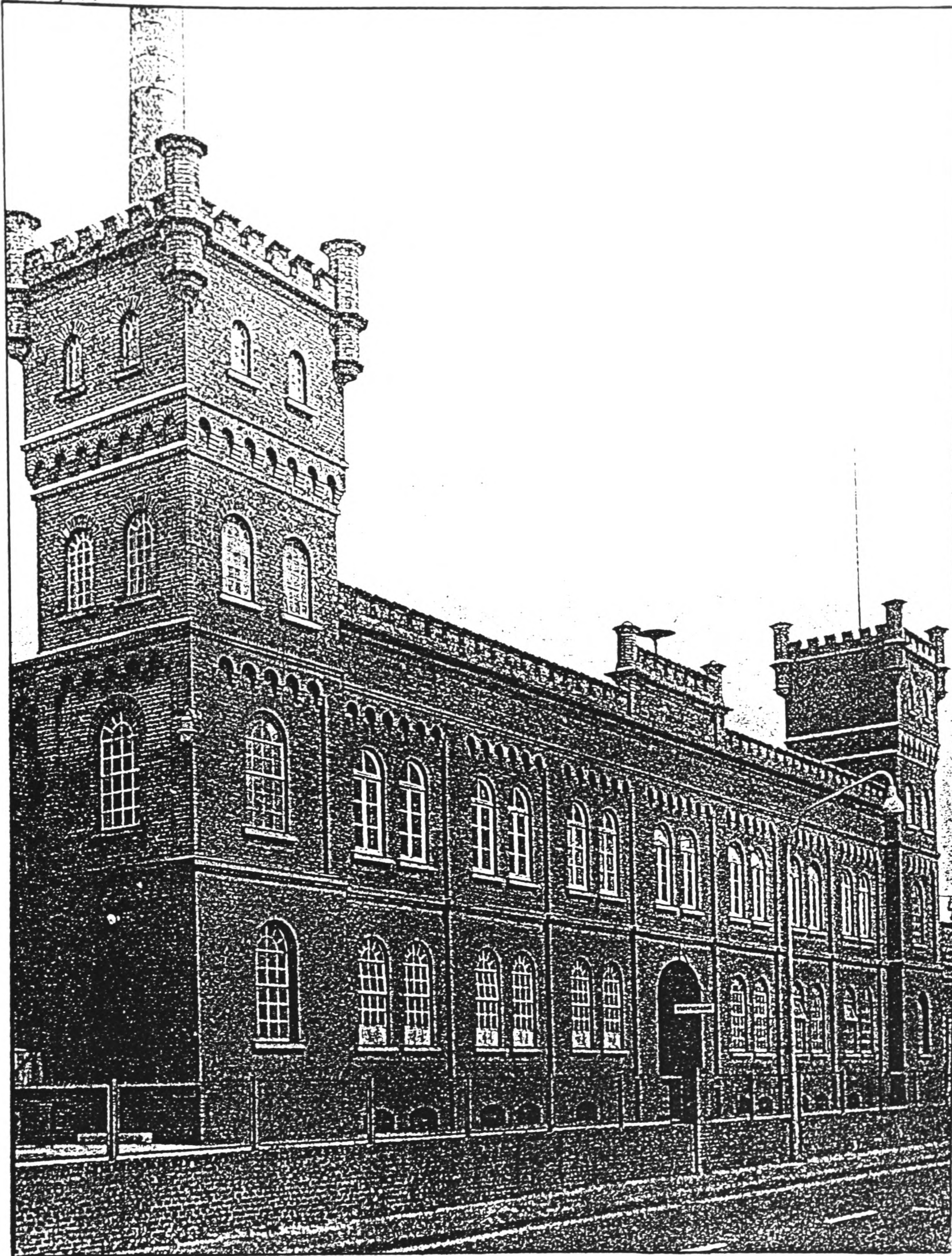
Watertower, Worms. 1888-1890. Arch. K.Hofmann.
Present condition.

fig.10



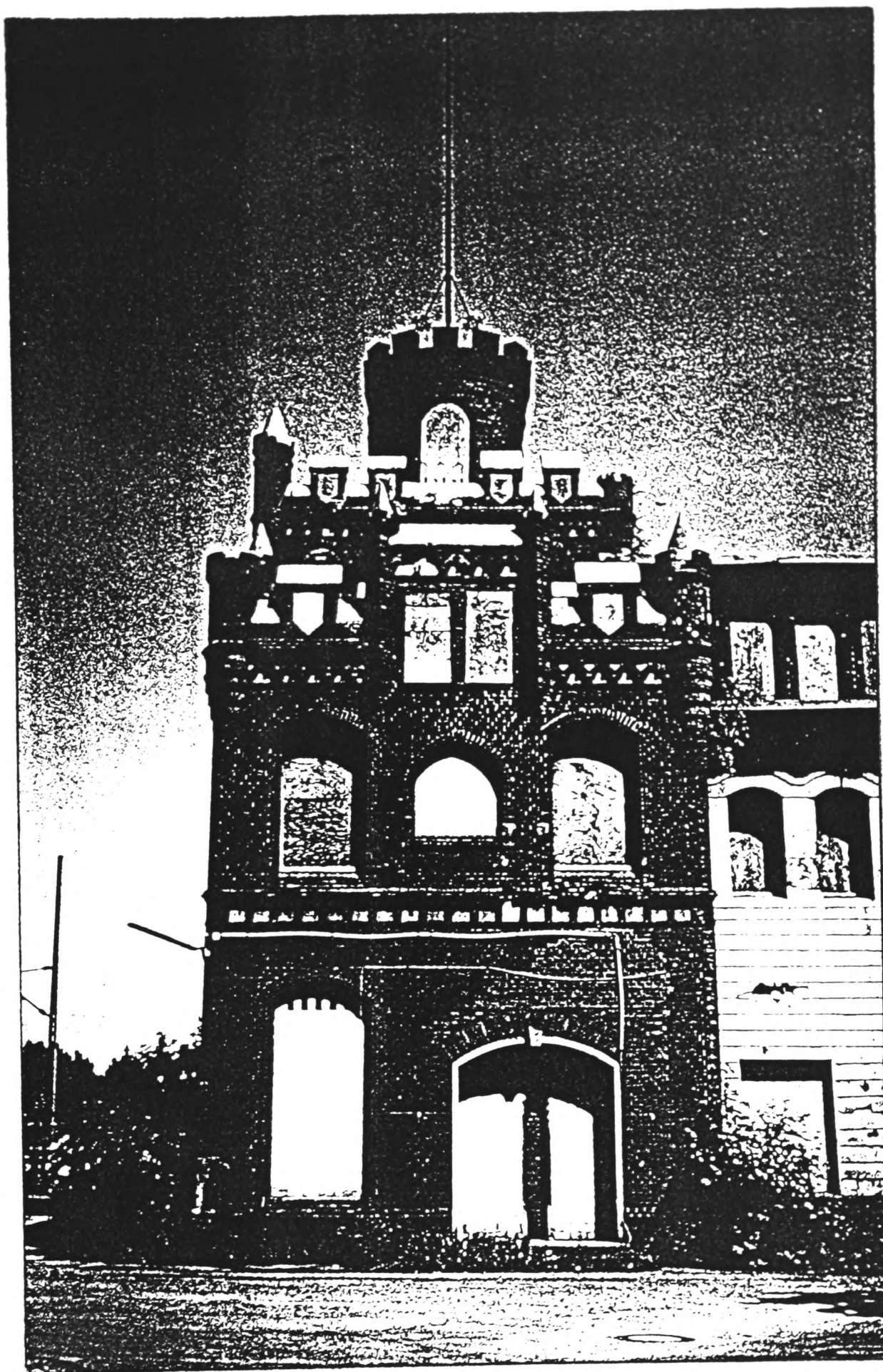
Laurenz brothers textile mill, Ochtrup 1893. Arch. Beltmann.
Present condition.

fig.11



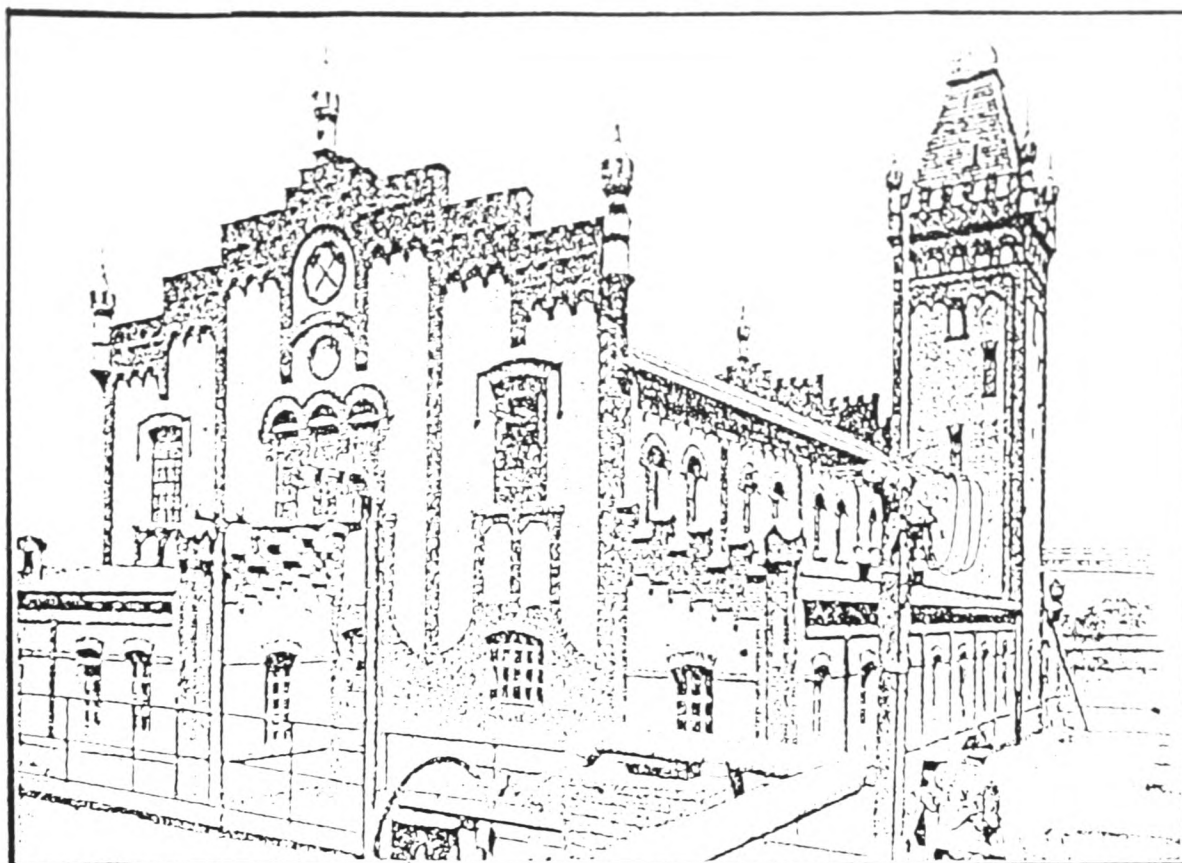
Krahn & Gobbers textile mill, Wassenberg 1890s. Arch. Hagemann.

fig.12



'Zeche Adolf von Hanseemann' pit-head building, Dortmund-Mengede 1899.
Present condition.

fig.13



'Zeche Friderika', pit-head building, Bochum. Date and architect unknown.

Borsig factory gate, Berlin-Tegel 1895-98. Arch. K.Reimer & F.Körte.
Present condition.

fig.14

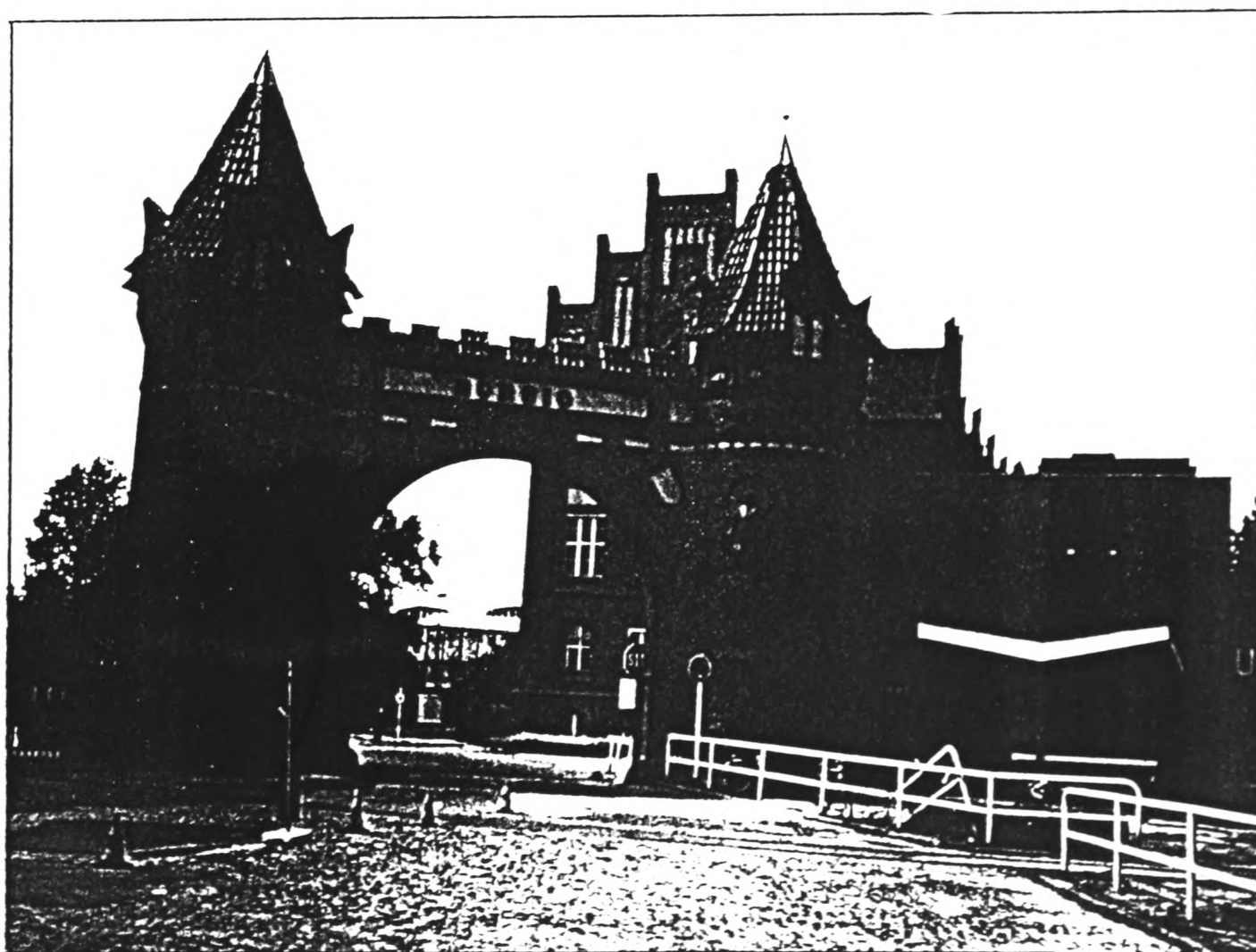
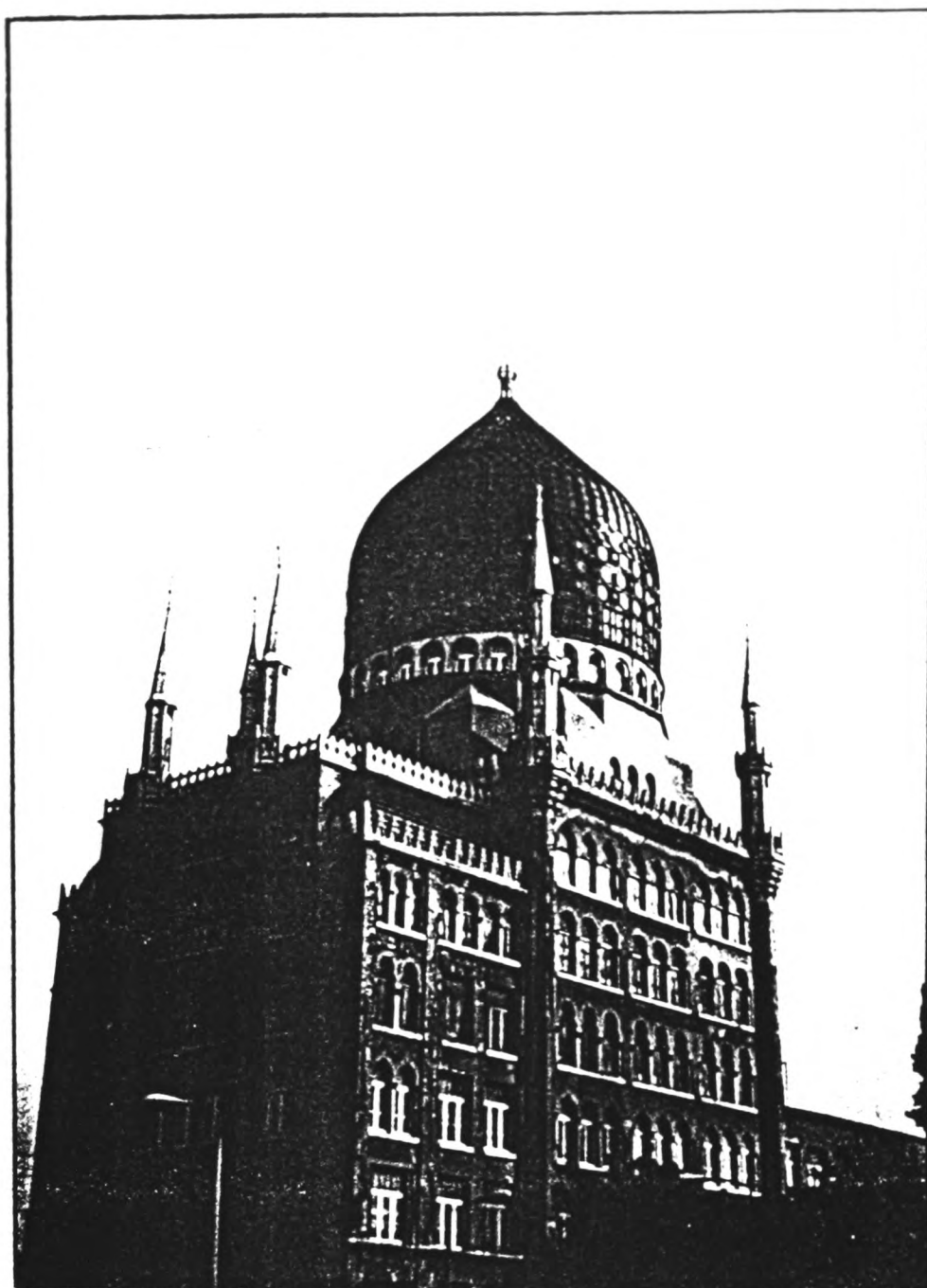
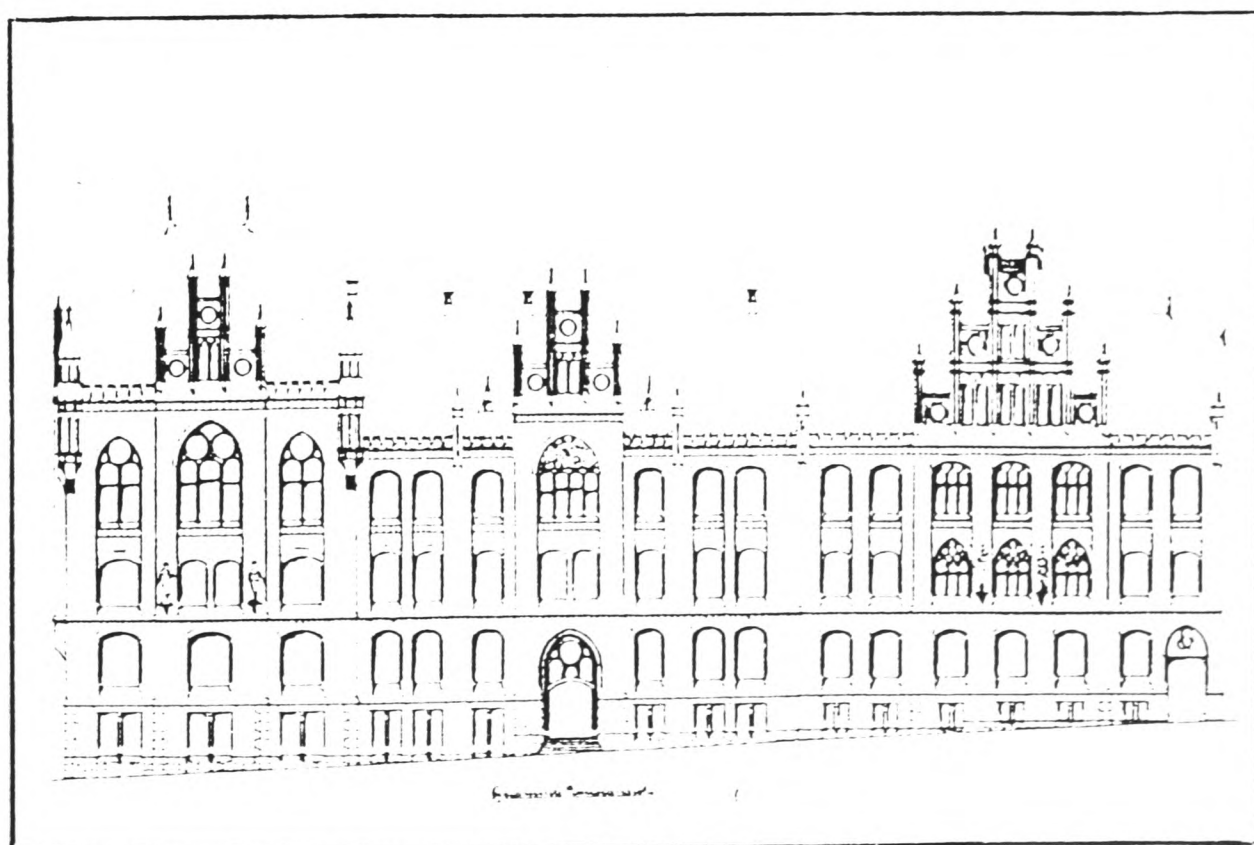


fig.15



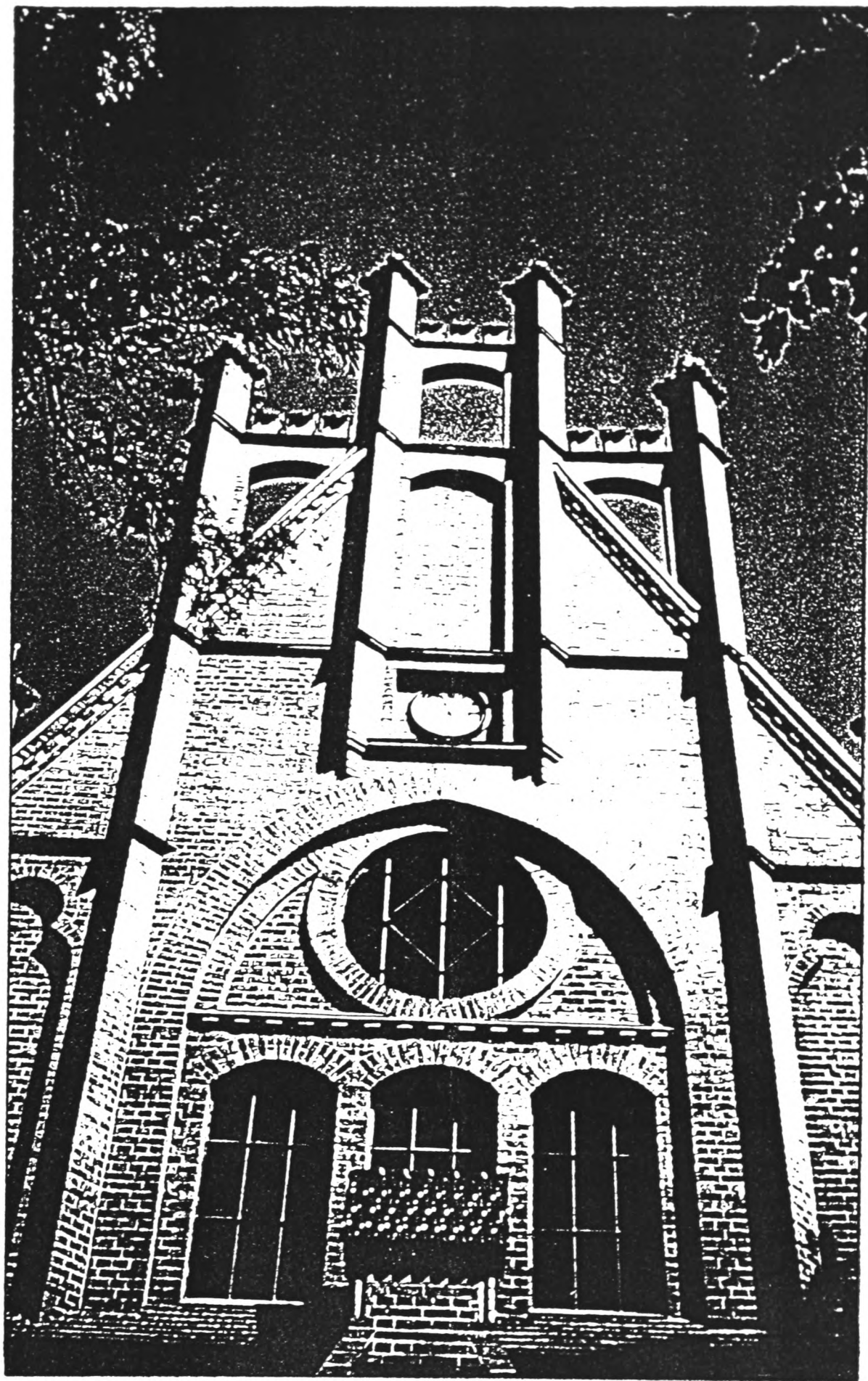
'Yenidze' cigarette factory,
Dresden 1909.
Present condition.

fig.16



RWKS administrative building, Essen 1894, extension 1899-1900.
Arch. Lohrmann, extension C.Nordmann.

fig.17



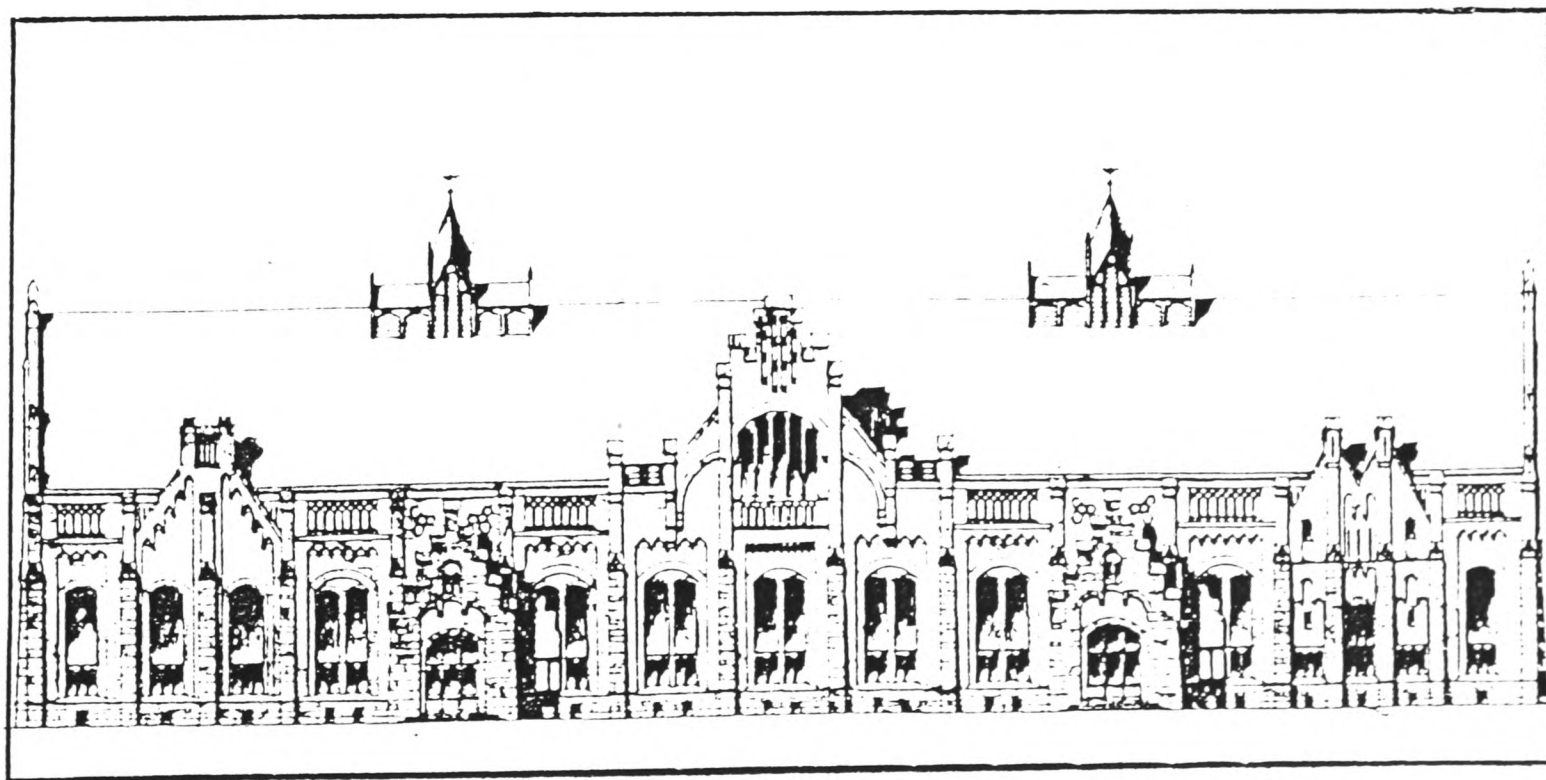
'Zeche Zollern 2' gable of office building,
Dortmund-Bövinghausen 1901.
Present condition.

fig.18

'Zeche Zollern 2' wages hall,
Dortmund-Bövinghausen 1901.
Arch. P.Knobbe.



fig.19



'Zeche Zollern 2' planned machine hall. Arch. C.Knobbe (unbuilt).

fig.20

'Zeche Zollern 2' machine hall,
Doorway 1903. Arch. B.Möhring.

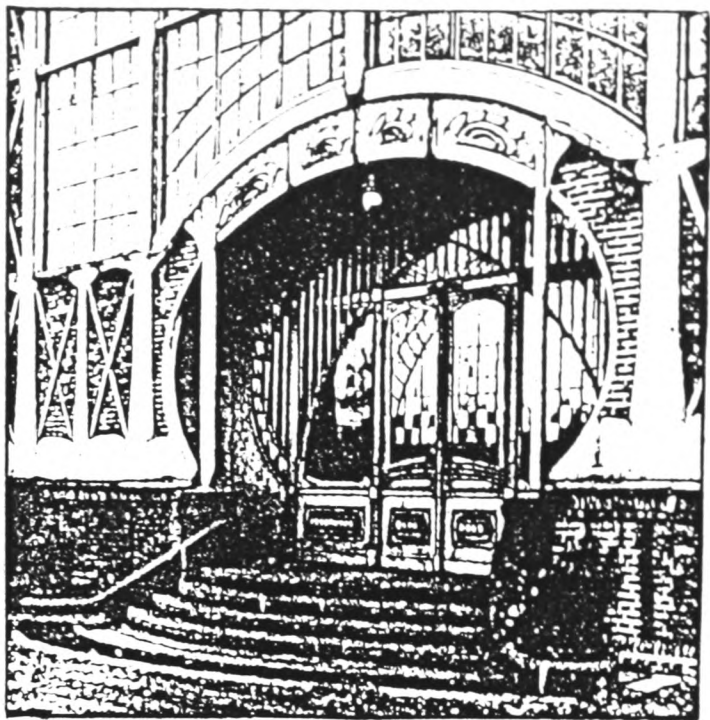


fig.21 'Zeche Zollern 2' machine hall 1903. Arch. B.Möhring & R.Krohn.

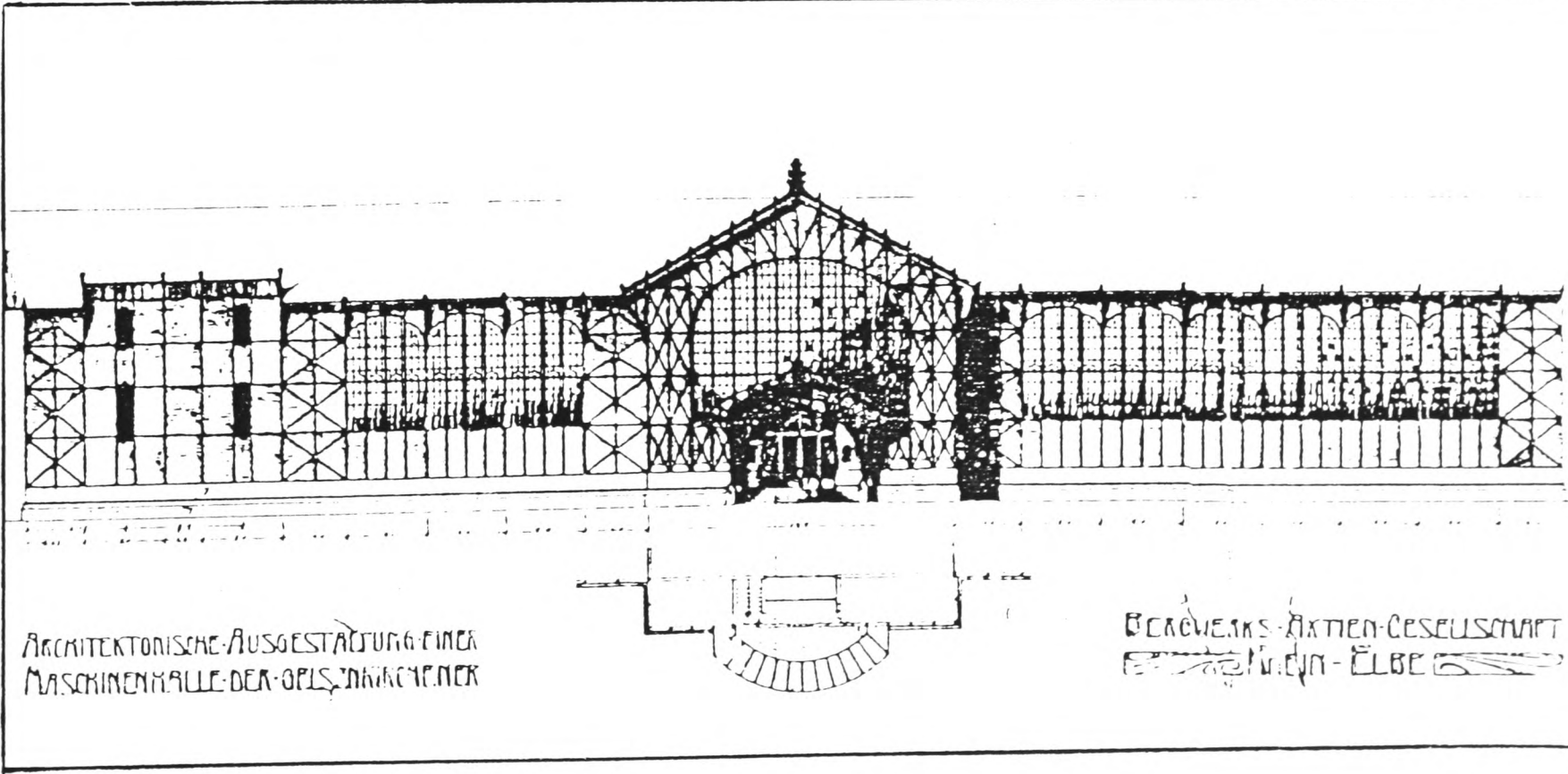
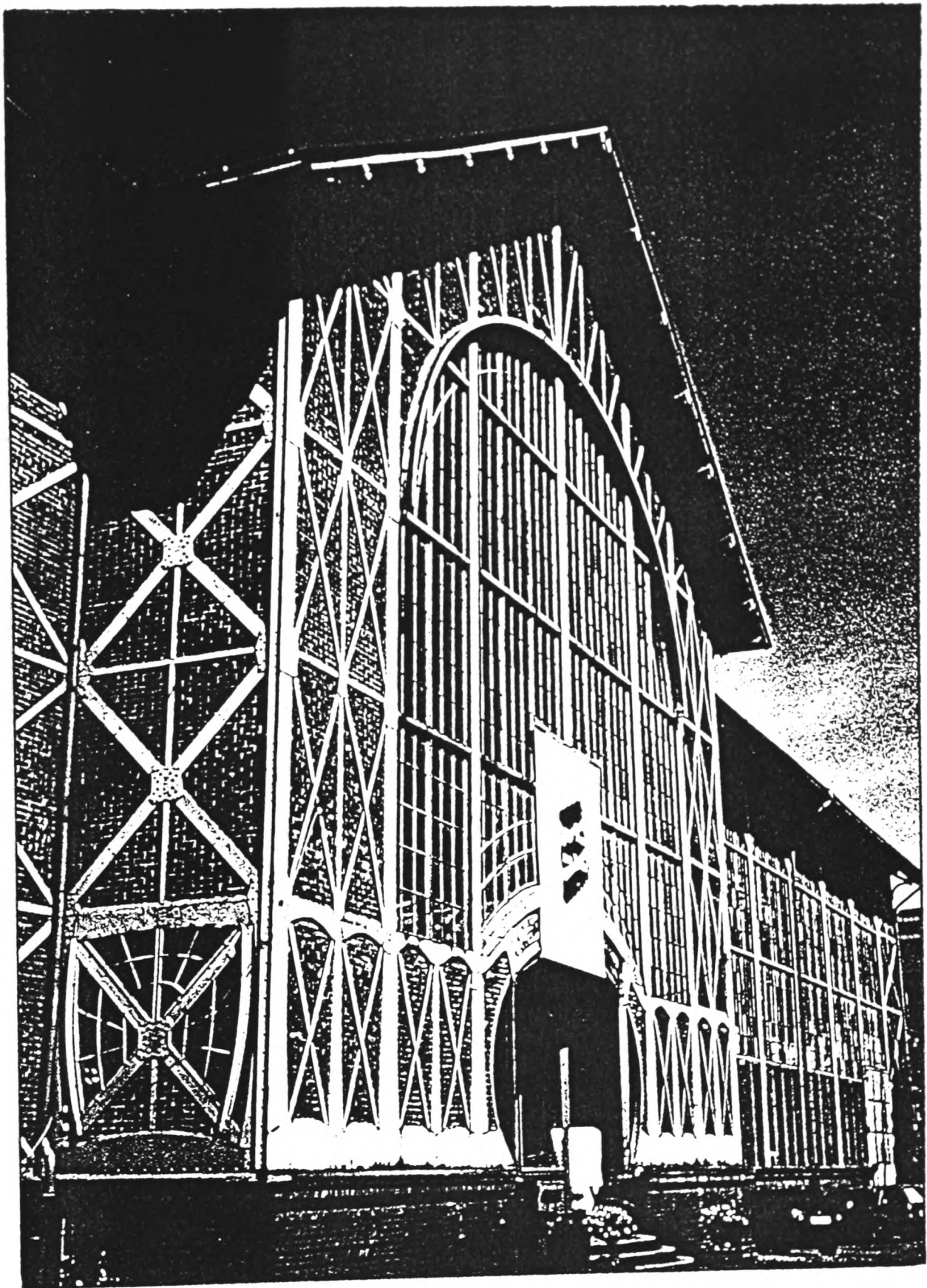
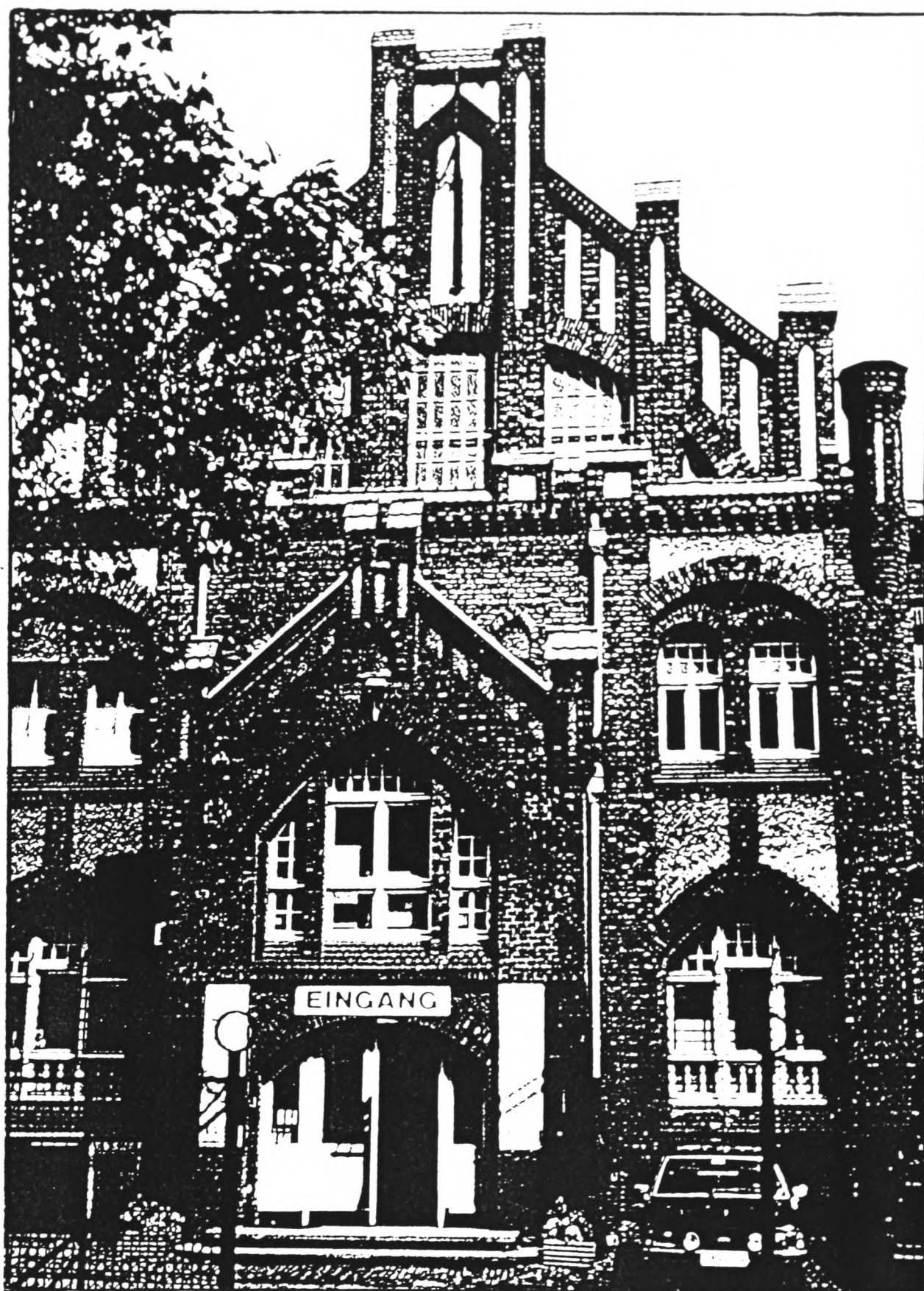


fig.22



'Zeche Zollern 2' machine hall 1903. Arch. B.Möhring & R.Krohn.
Present condition.

fig.23

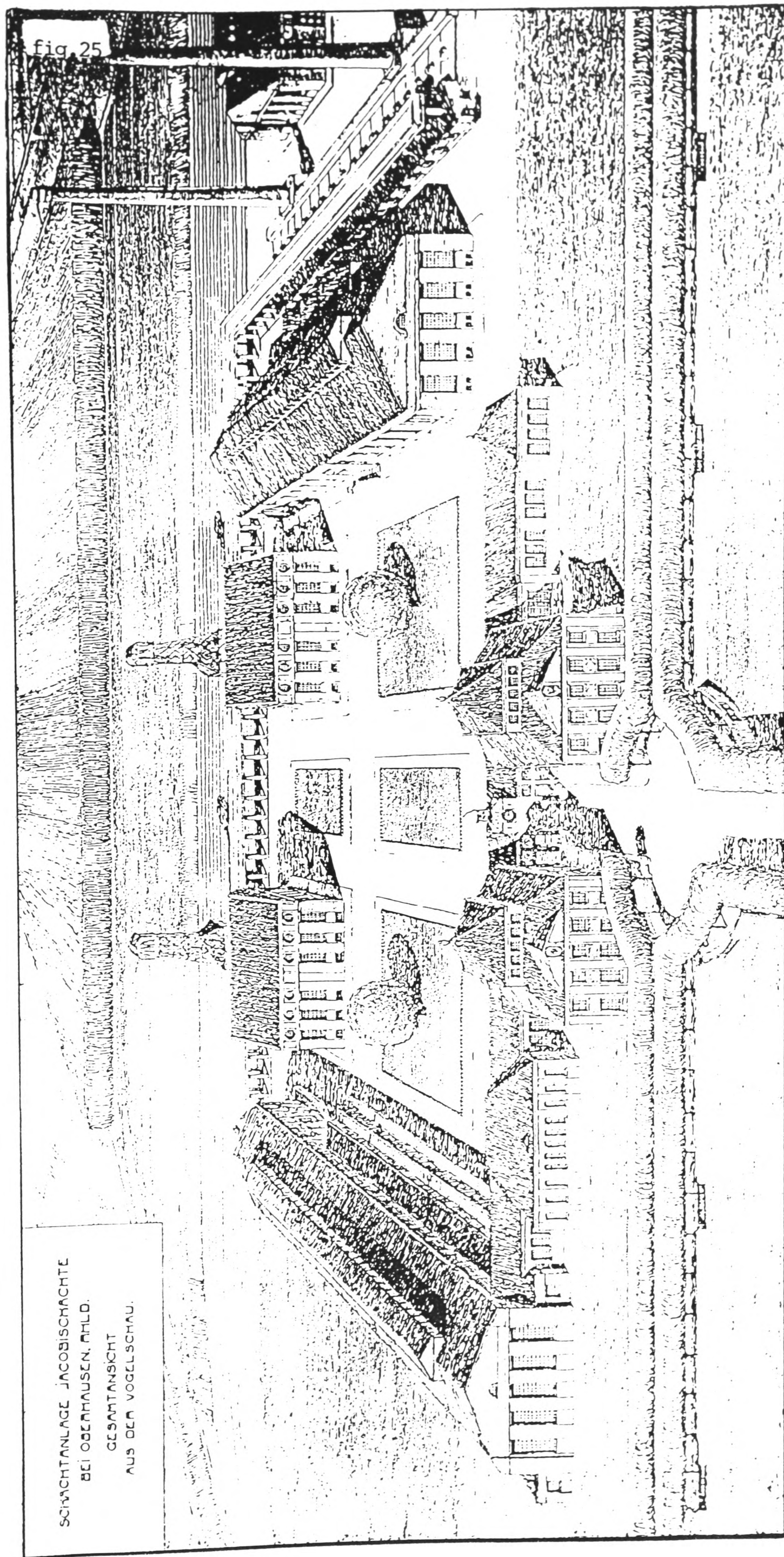


'Zeche Bonifacius', pit-head building, Essen-Kray 1905.
Present condition.

fig.24

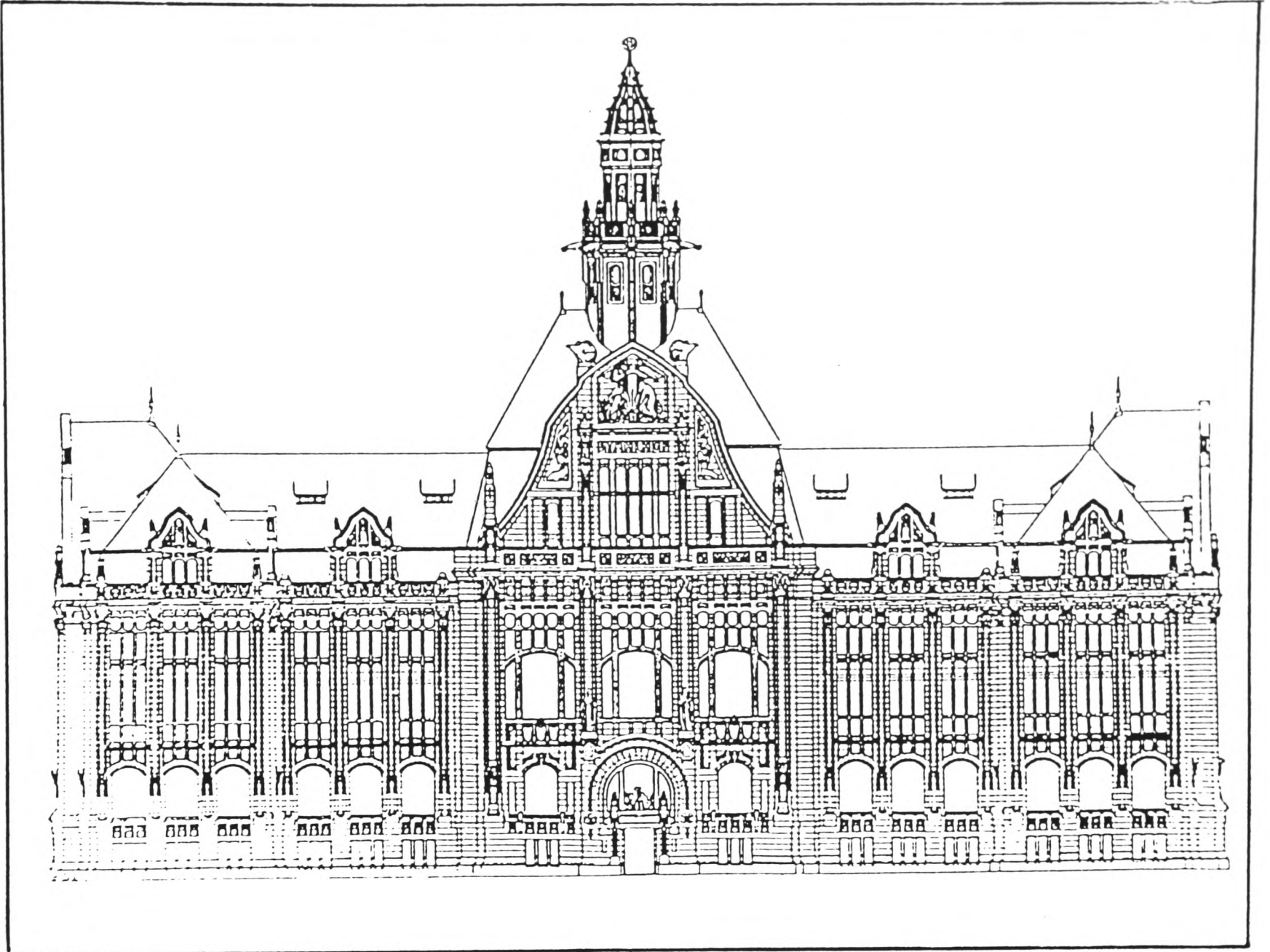


'Zeche Westhausen', pit-head building,
Dortmund-Bodelschwingh 1904-5.
Present condition.



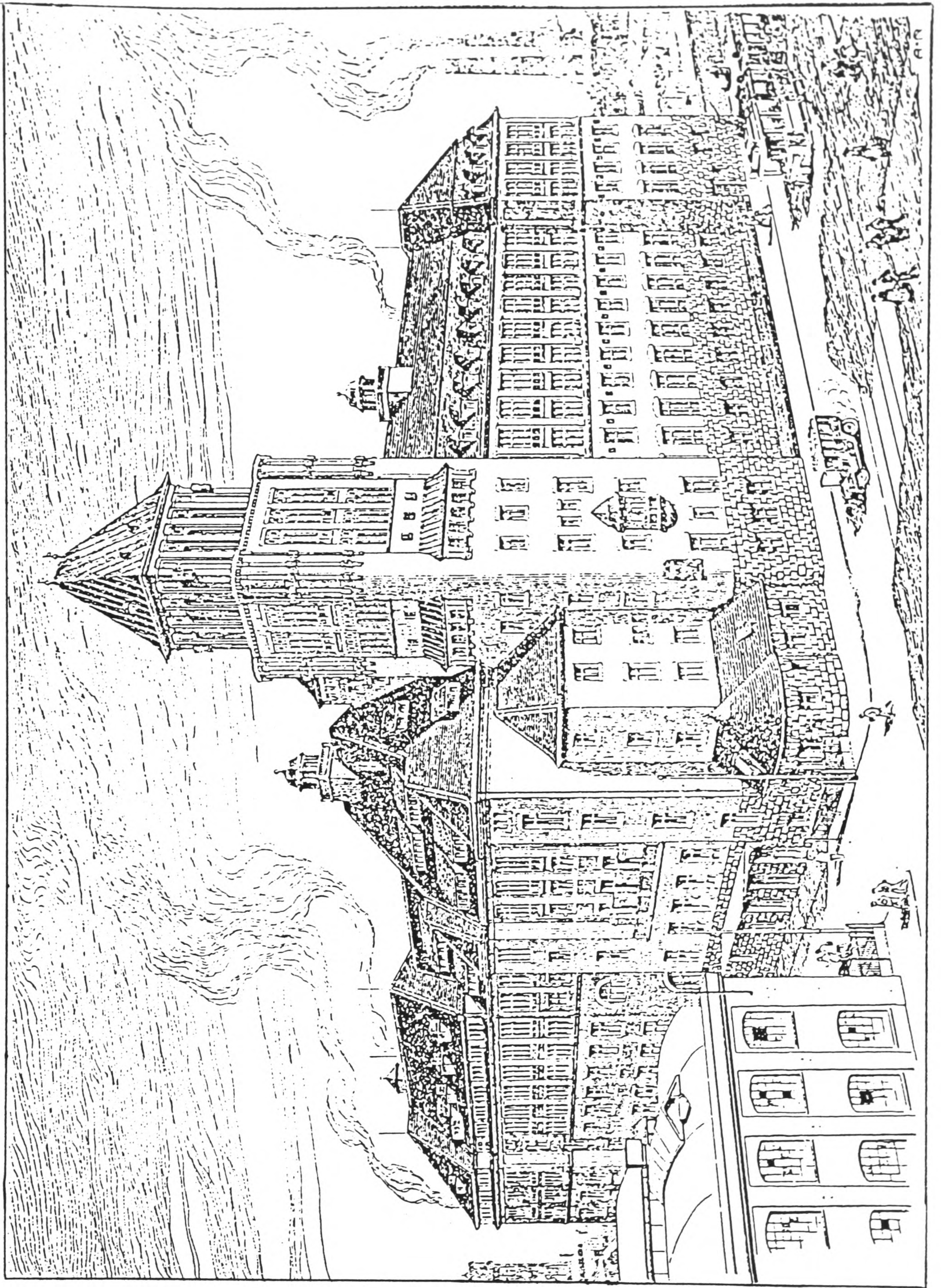
'Zeche Jacobi', plan of complex, Oberhausen 1912-14. Arch. C.Weigle.

fig.26



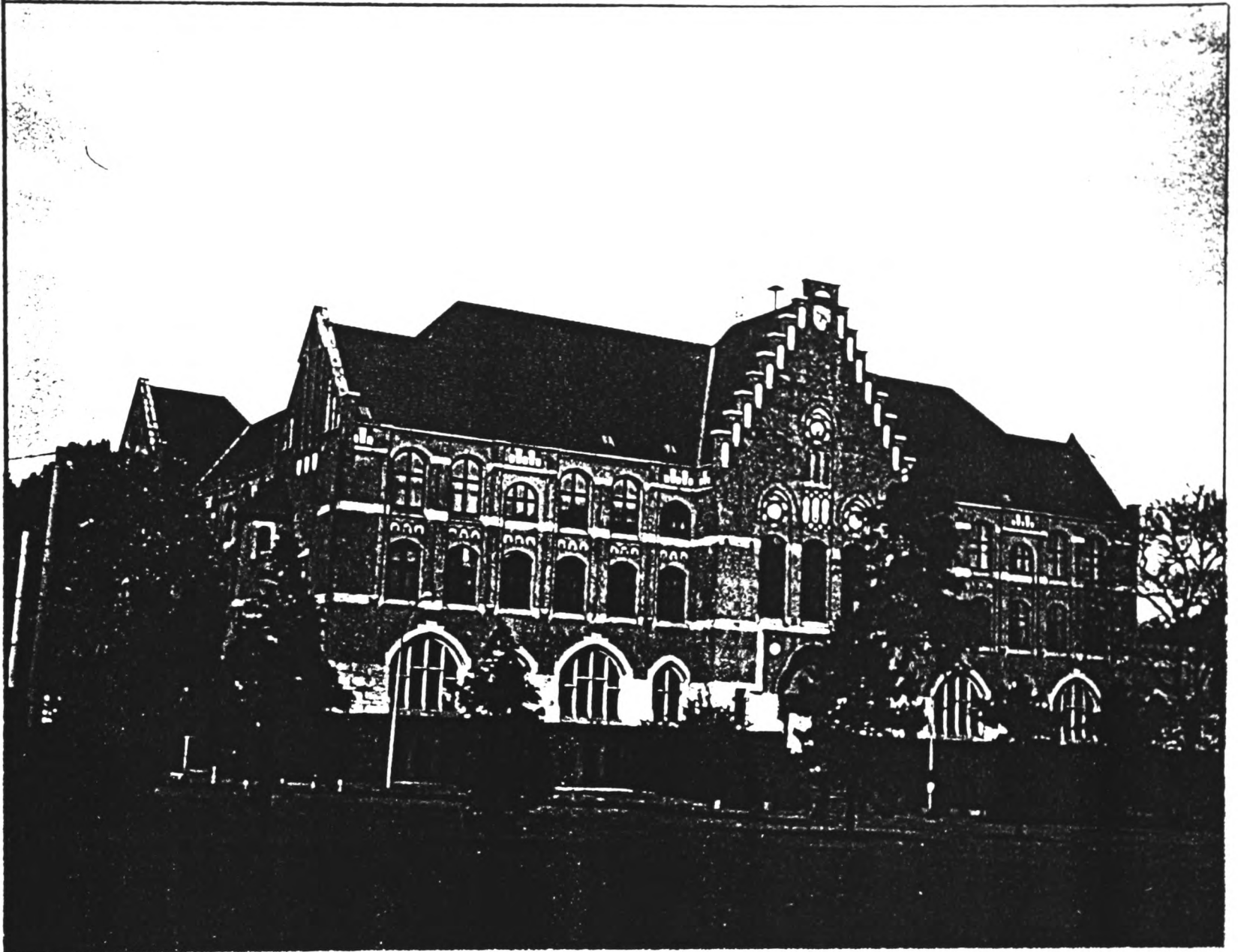
'Stahlhof', administrative building, Düsseldorf 1906-9. Arch. J. Radke.

fig.27



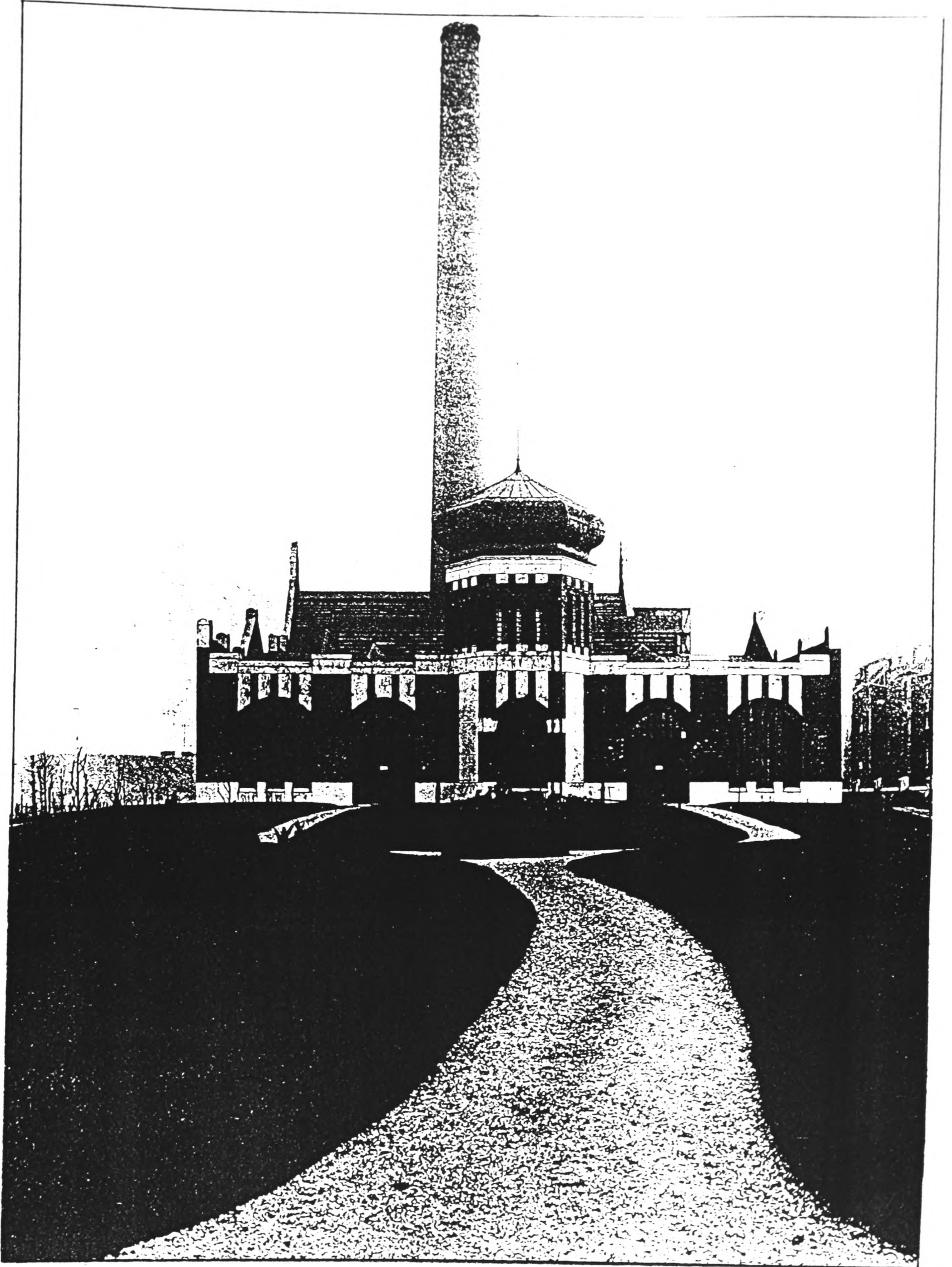
Fr.Krupp AG, administrative building, Essen 1908-10.

fig.28

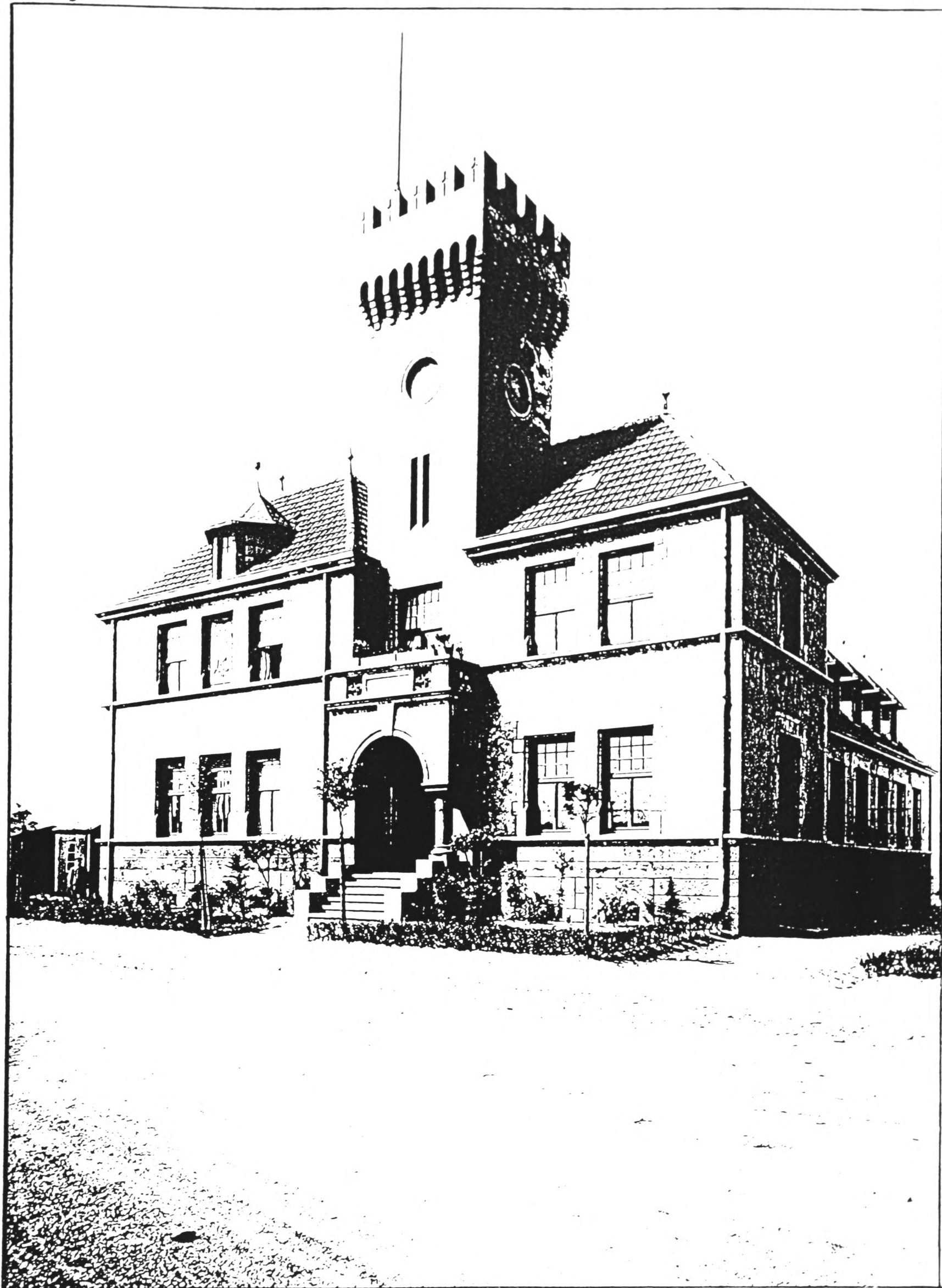


'Gewerkschaft Deutscher Kaiser', administrative building,
Duisburg-Bruckhausen 1902-4. Arch. C.Bern.
Present condition.

fig.29

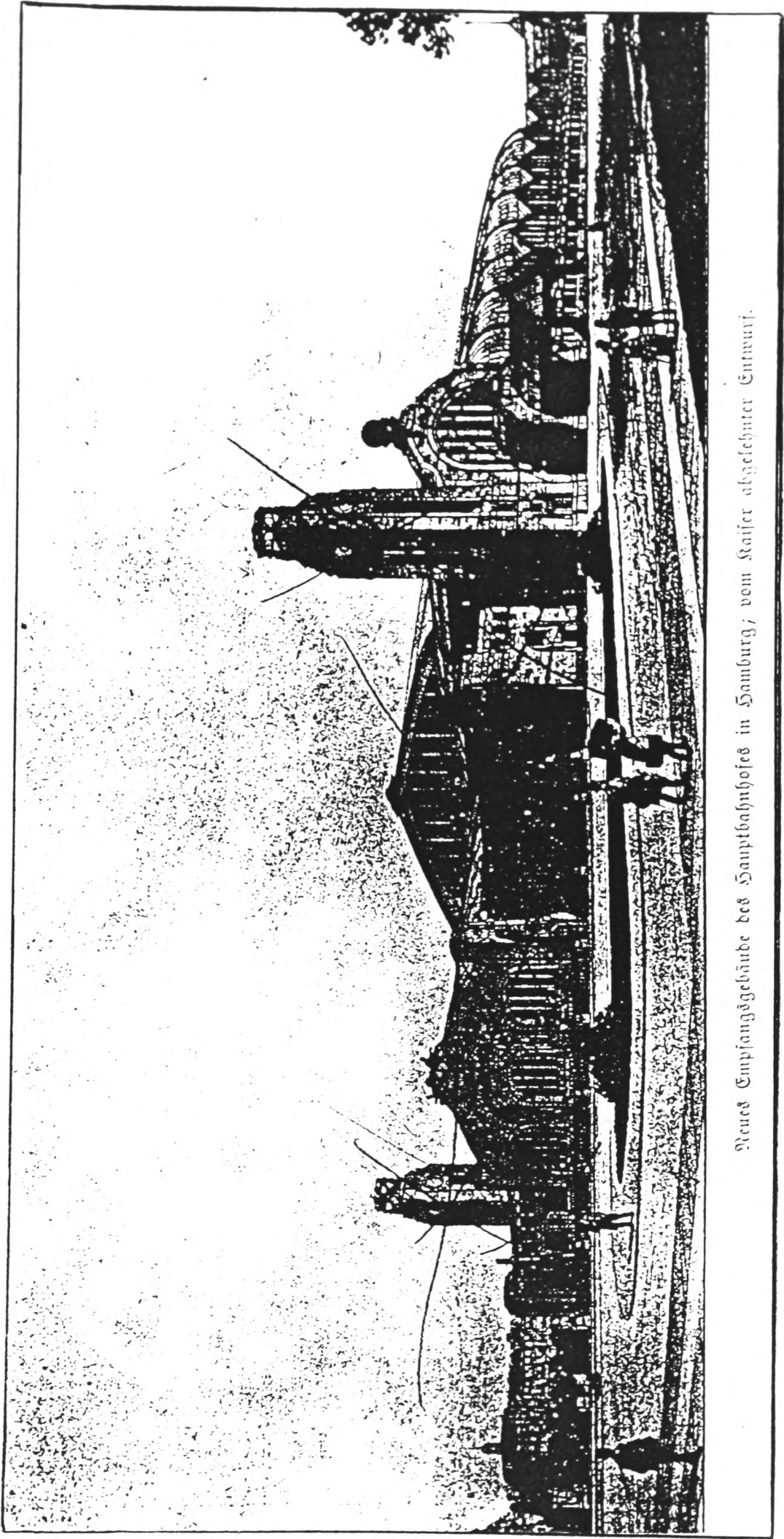


Beeckerwerth pumping station (Thyssen waterworks), Mülheim 1902.



Harbour office (GDK), Schwelgern 1906-7.

fig.31



Hamburg central station, design turned down by Kaiser Wilhelm II.

fig.32



Transformator-Türme in ländlicher Umgebung. Architekt: I. A. Böhlig in Dresden.

Electricity substations and transformer towers by 'Heimatschutz' architects. Above from 'Deutsche Bauzeitung' (4/12/1909), below from 'Heimatschutz' 1910.

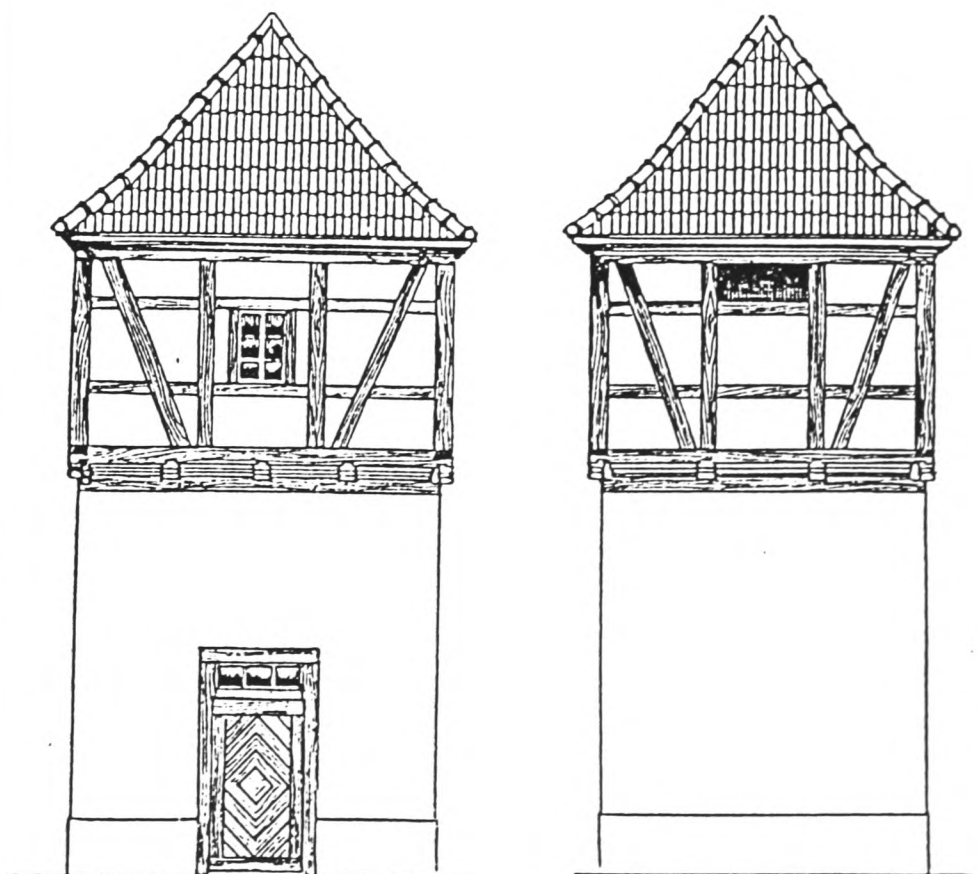
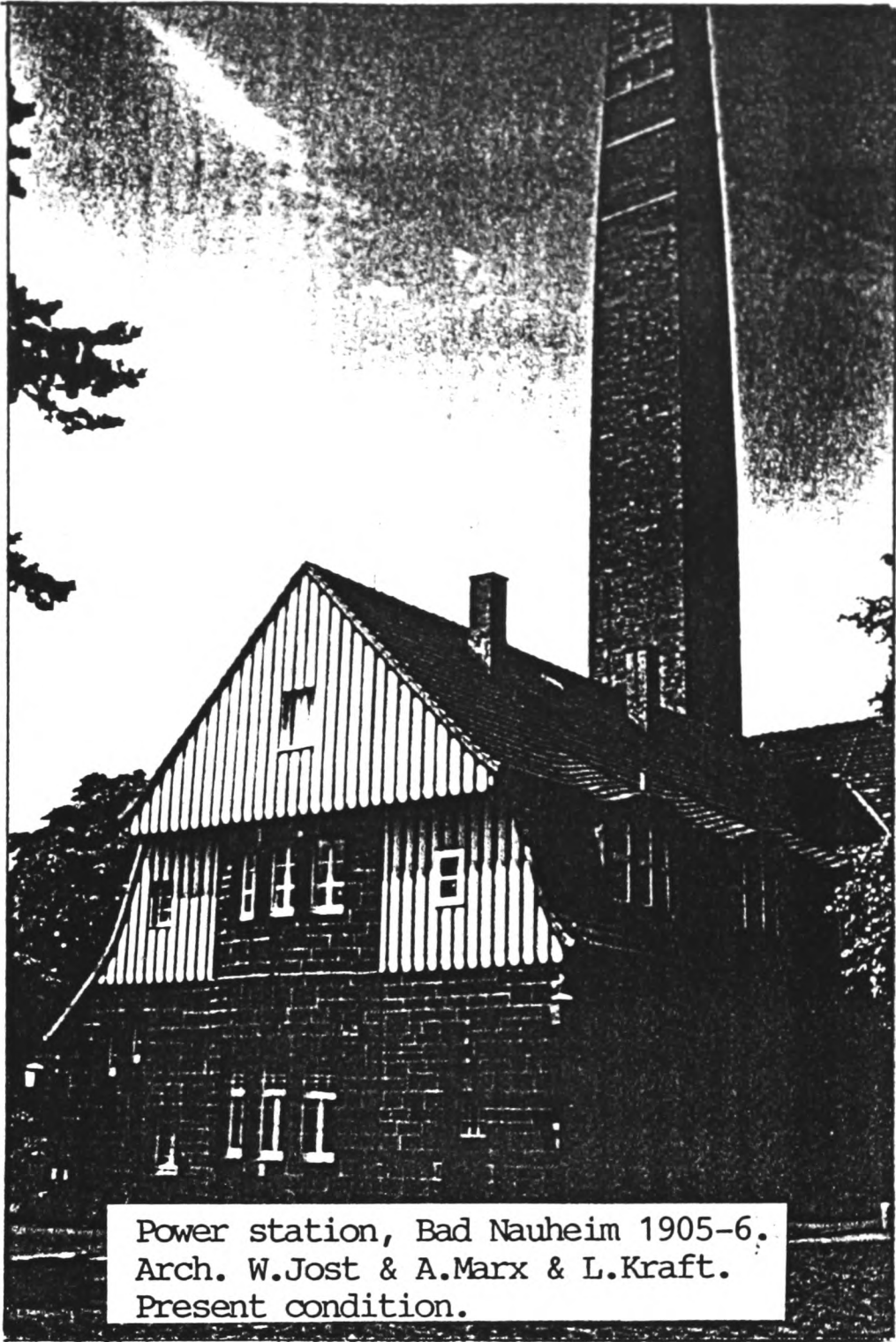


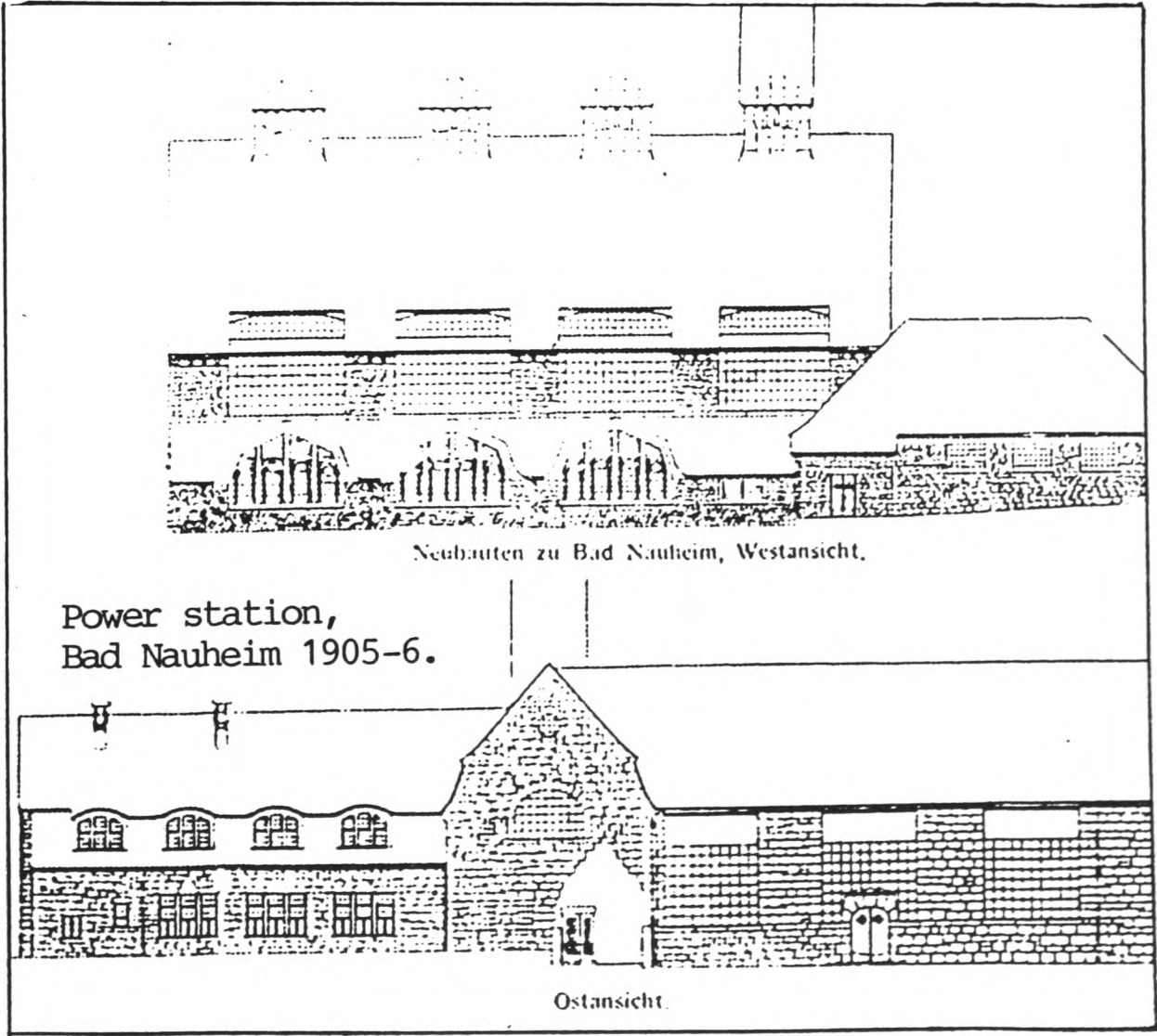
Abbildung 28. Desgleichen. (Für thüringische und fränkische Fachwerkgegenden.) Gute Form.

fig.33



Power station, Bad Nauheim 1905-6.
Arch. W.Jost & A.Marx & L.Kraft.
Present condition.

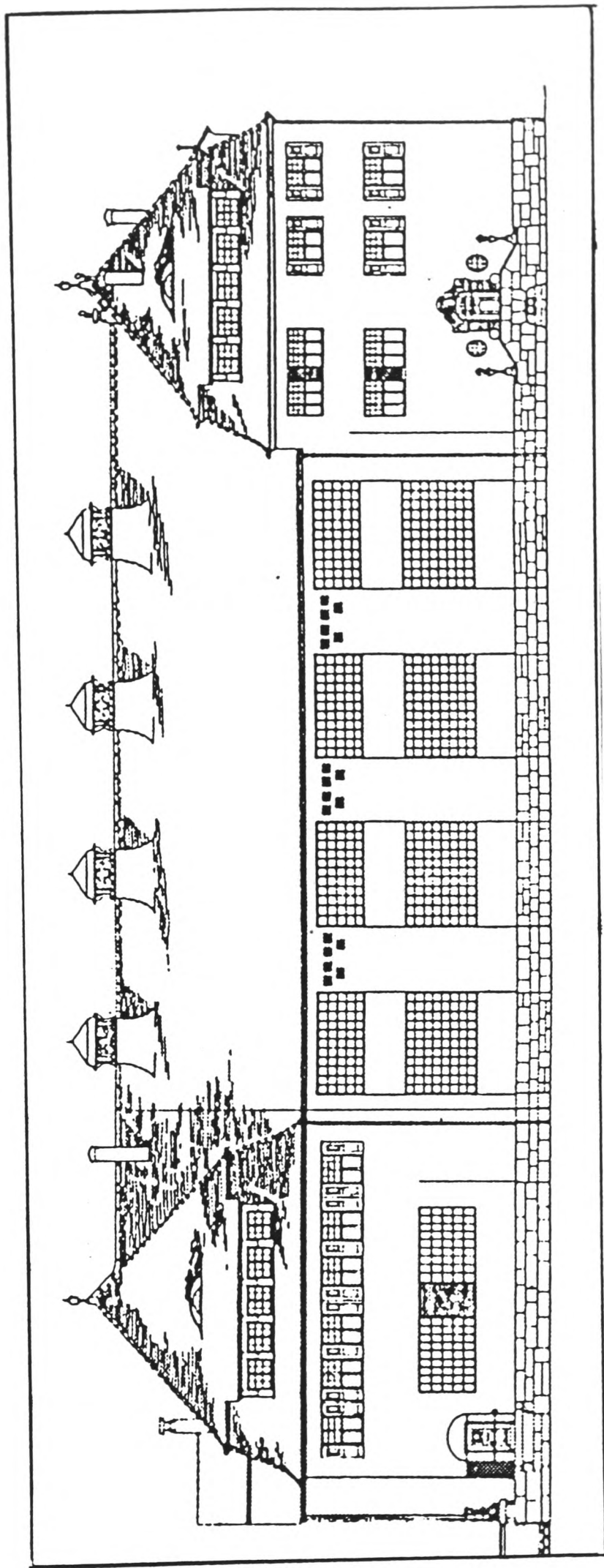
fig.34



Power station,
Bad Nauheim 1905-6.

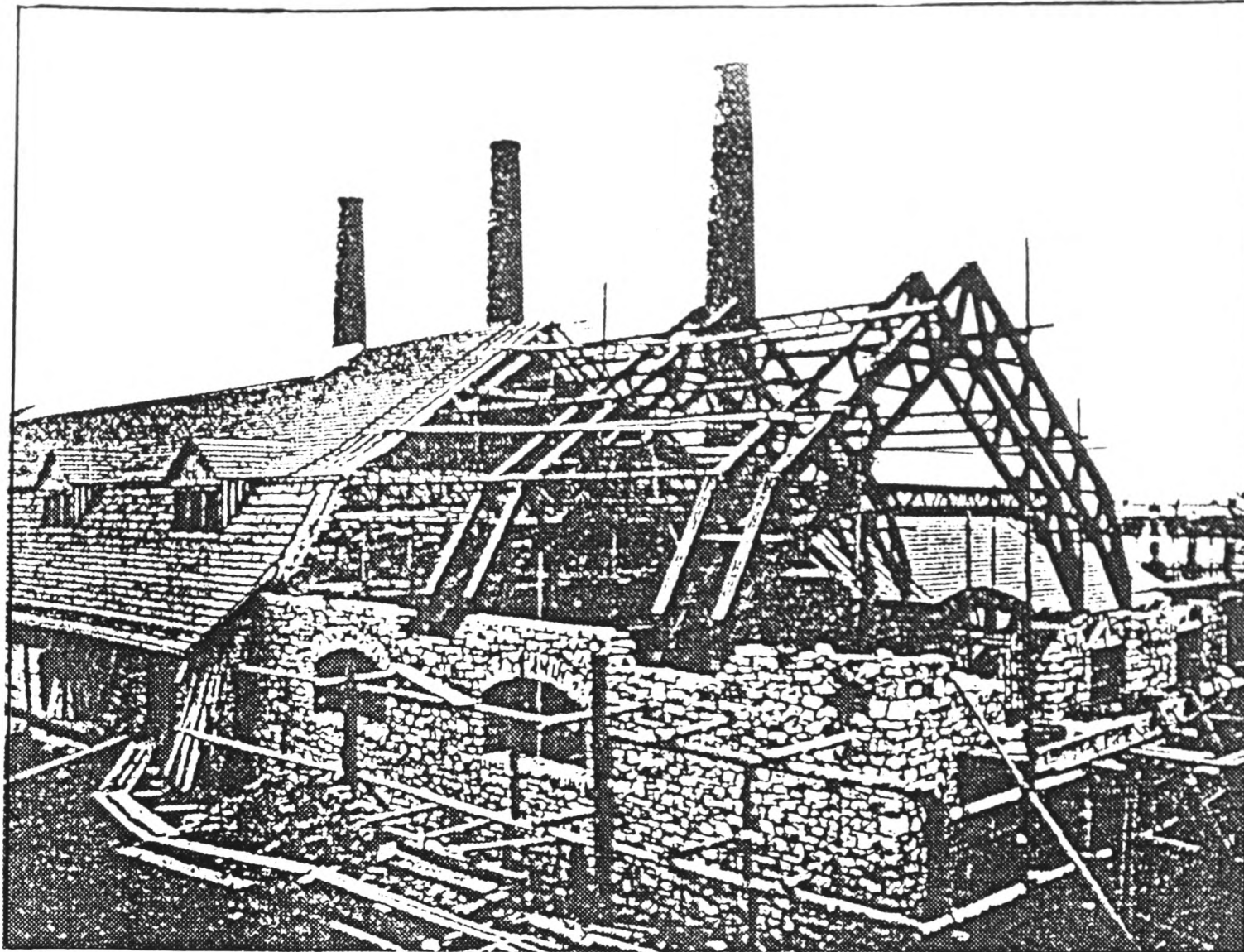
Ostansicht.

fig.35



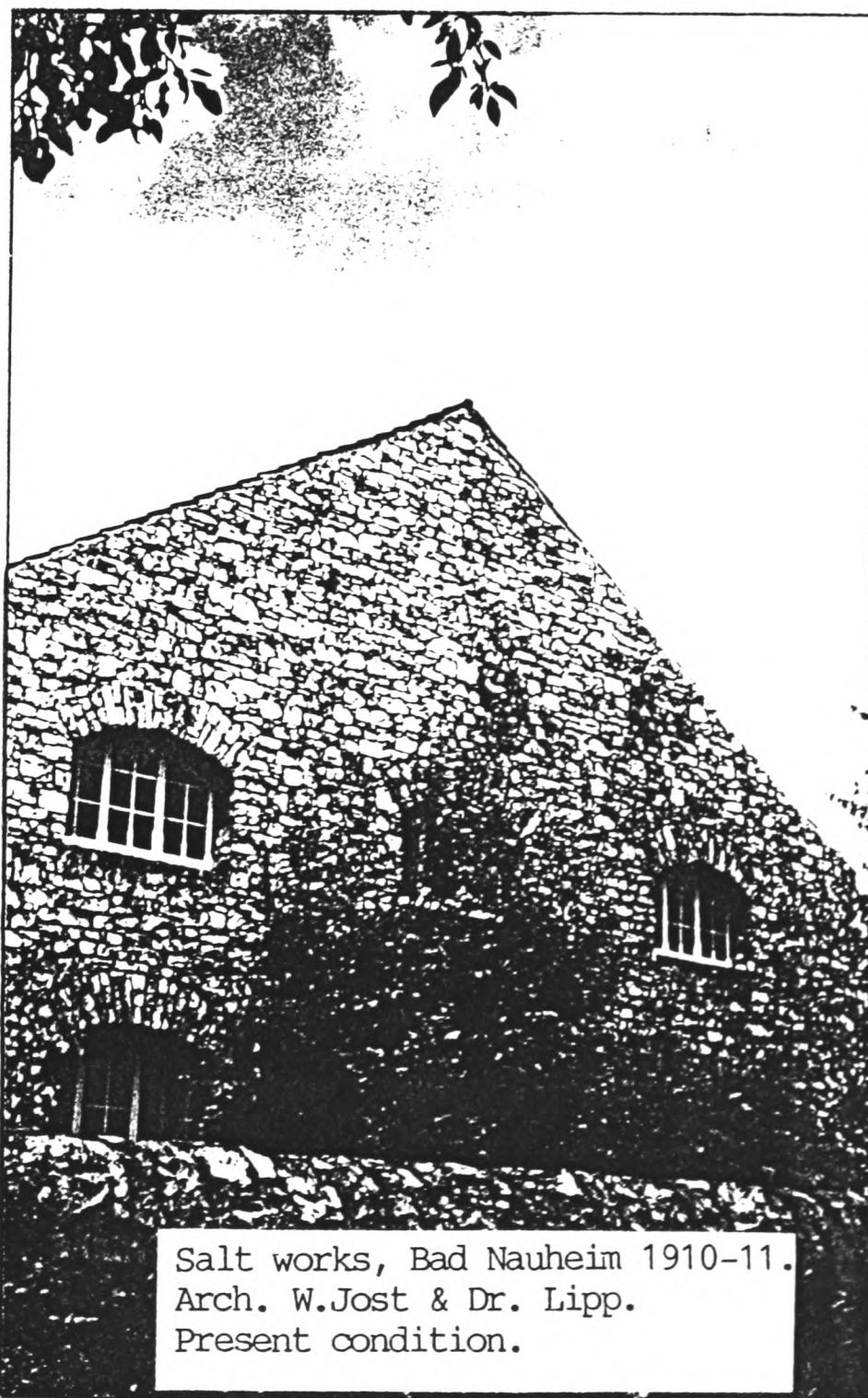
Mechanical steam laundry, Bad Nauheim 1907-8.
Arch. W.Jost & L.Kraft.

fig.36



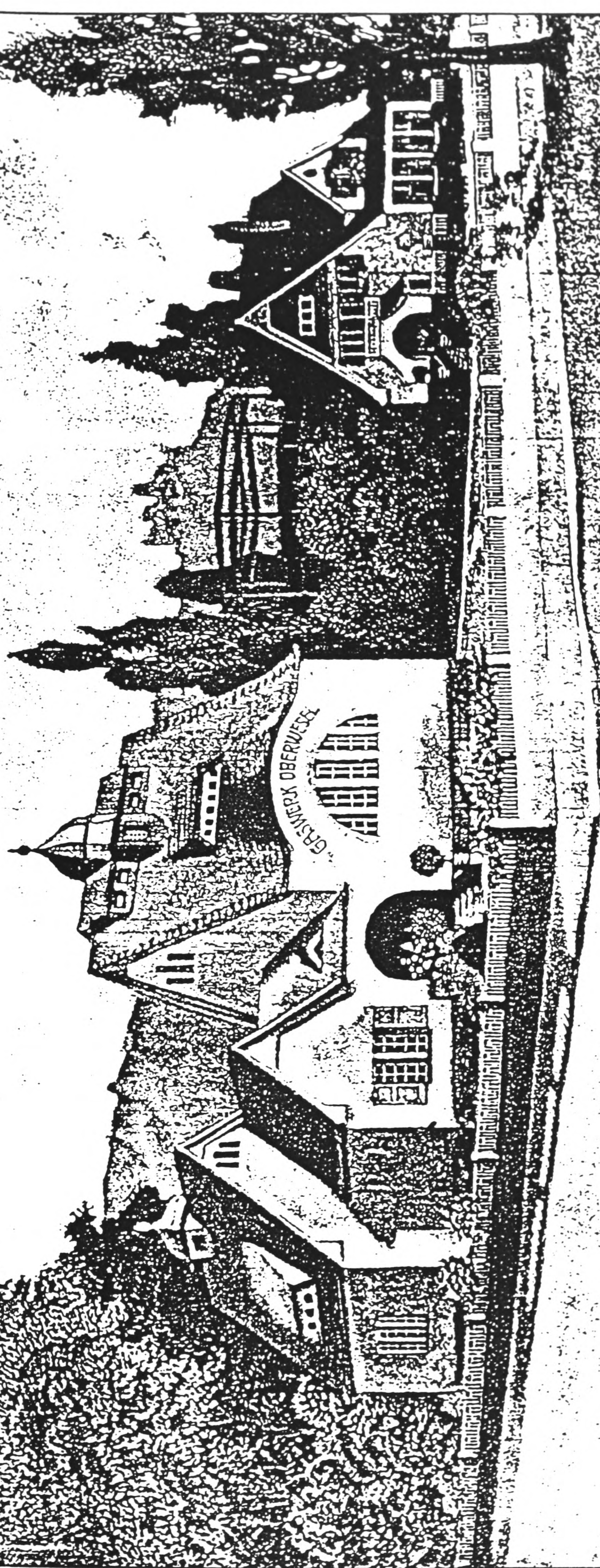
Salt works, Bad Nauheim in construction 1910-11. Arch. W.Jost & Dr.Lipp.

fig.37



Salt works, Bad Nauheim 1910-11.
Arch. W.Jost & Dr. Lipp.
Present condition.

fig.38



GASWERK: OBERWESSEL

OBERWESEL GASWORKS
ARCHITECT : S. SIMON

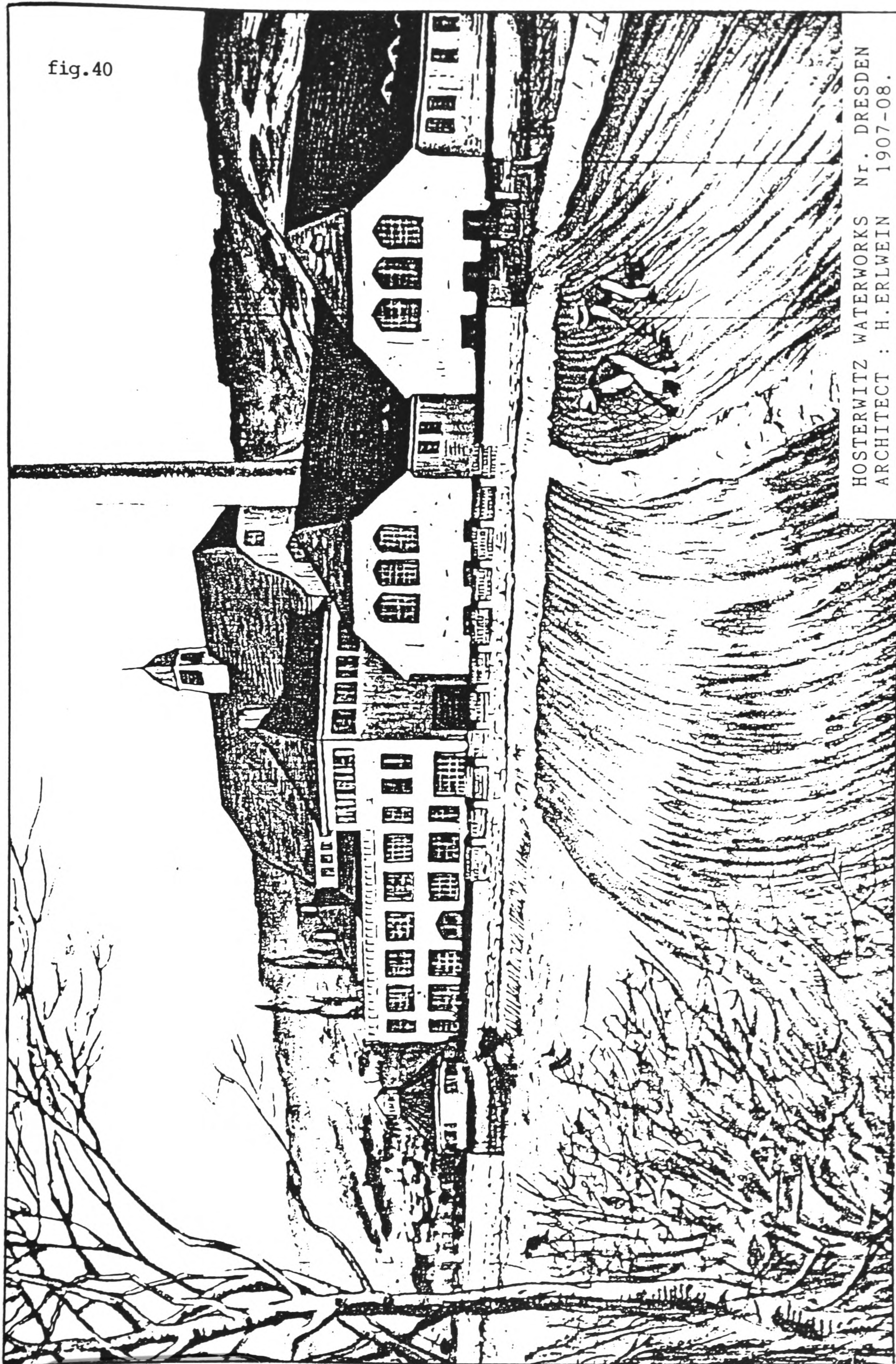
RHINELAND
1908

fig.39



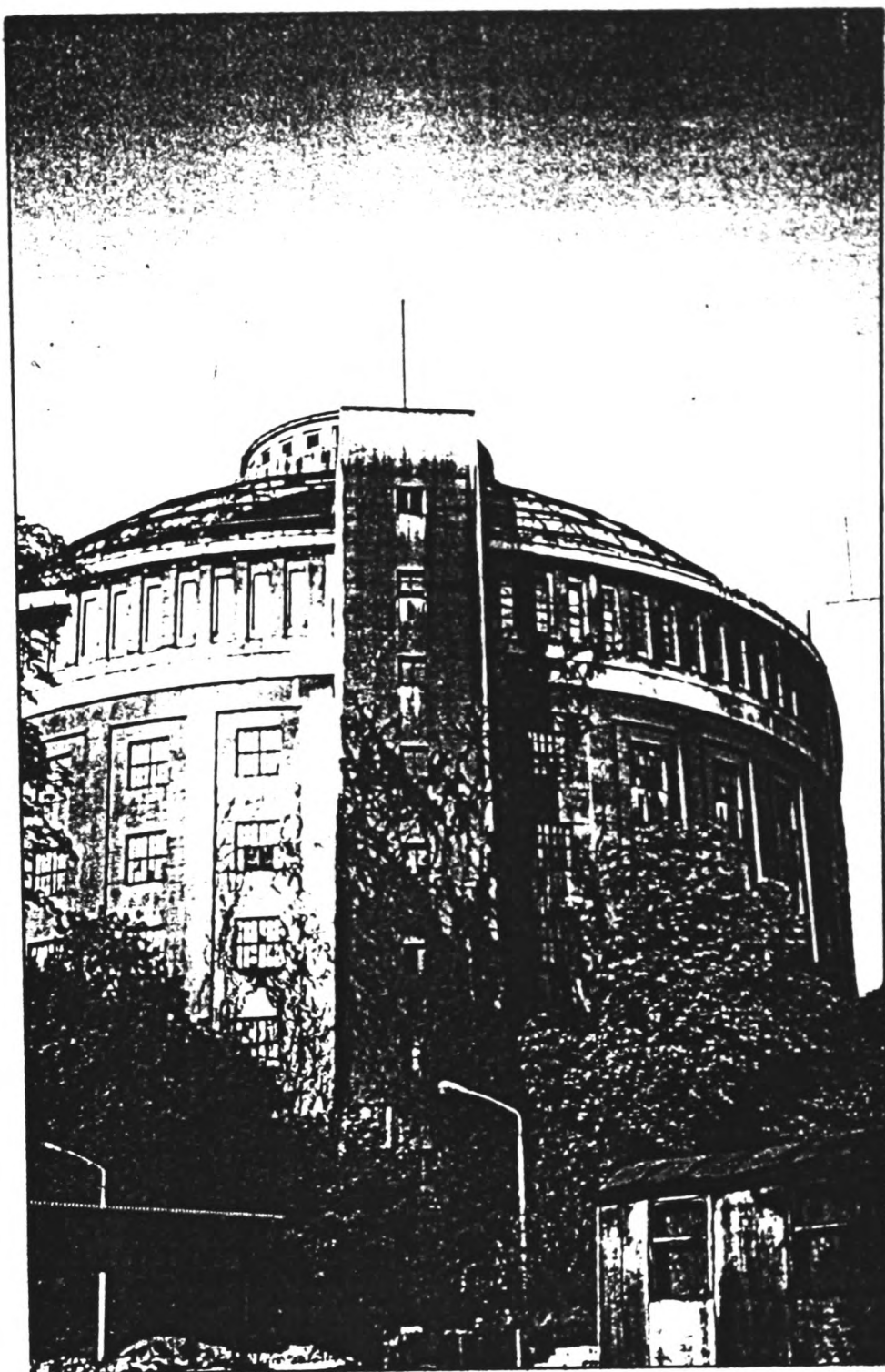
Municipal warehouses, Cologne-Agrippinaufer 1908-9.
Arch. H.Verbeek. Present condition.

fig.40



HOSTERWITZ WATERWORKS Nr. DRESDEN
ARCHITECT : H. ERLWEIN 1907-08.

fig.41

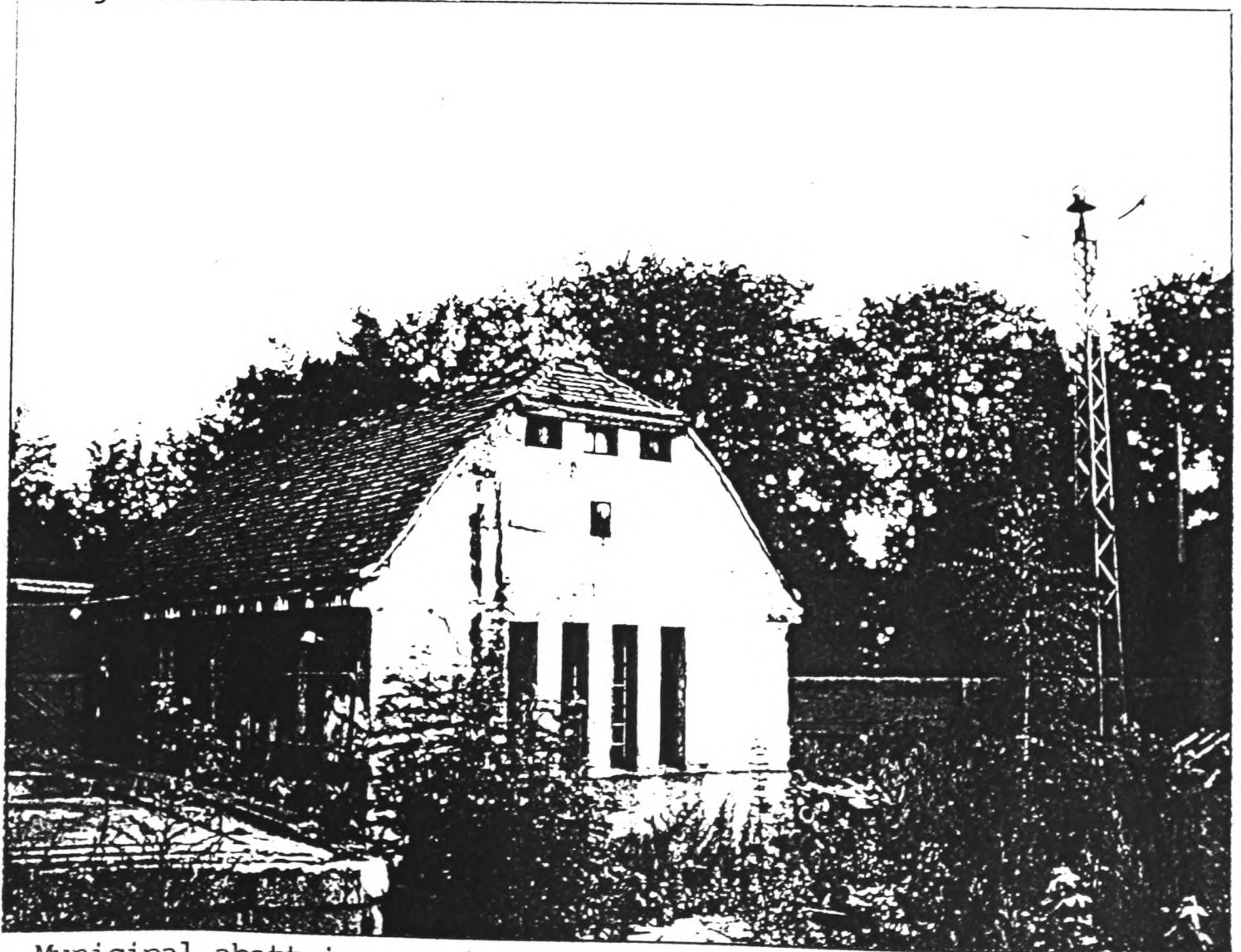


Municipal gasworks, Dresden-Reick 1908-9.
Arch. H.Erlwein.
Present condition.

fig.42
Municipal abattoir
- Power station,
Dresden 1906-10.
Arch. H.Erlwein.
Present condition.

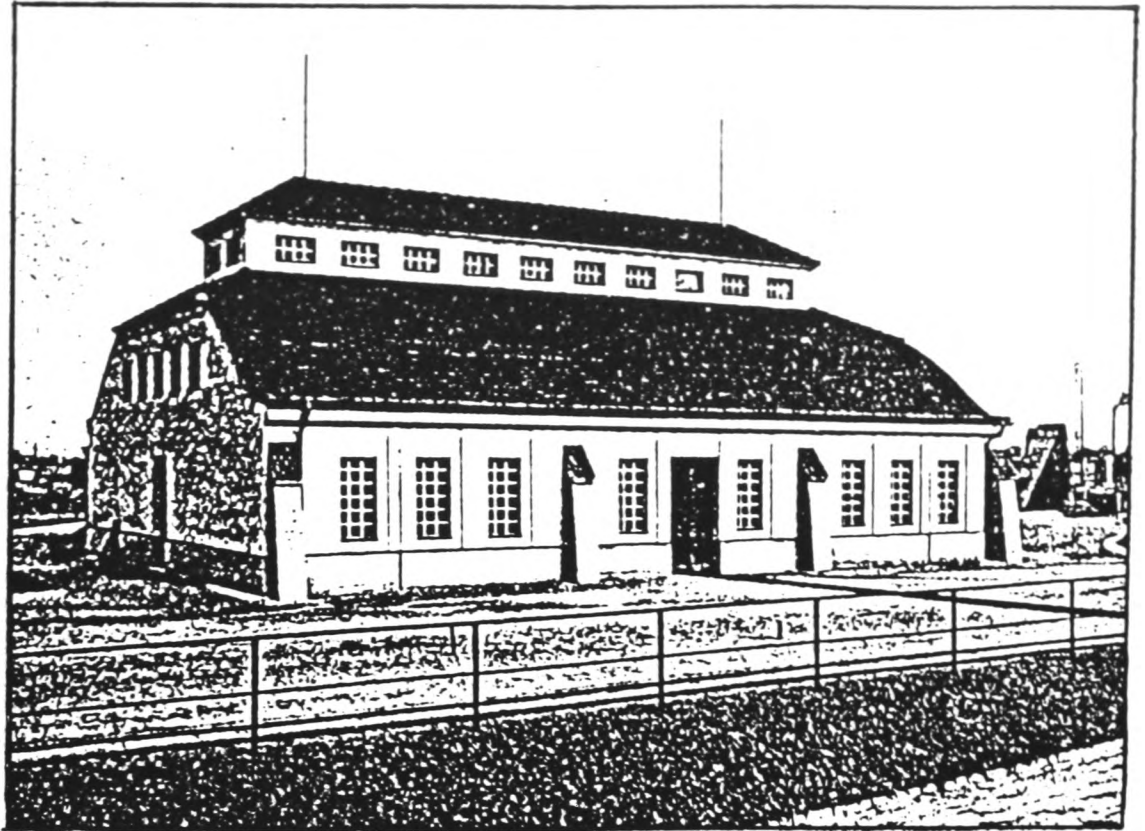


fig.43



Municipal abattoir - engine shed, Dresden 1906-10. Arch. H.Erlwein.

fig.44



Municipal sewage works, Dresden-Kaditz 1908-11. Arch. H.Erlwein.

Municipal tobacco warehouse, Dresden 1913. Arch. H.Erlwein.

fig.45

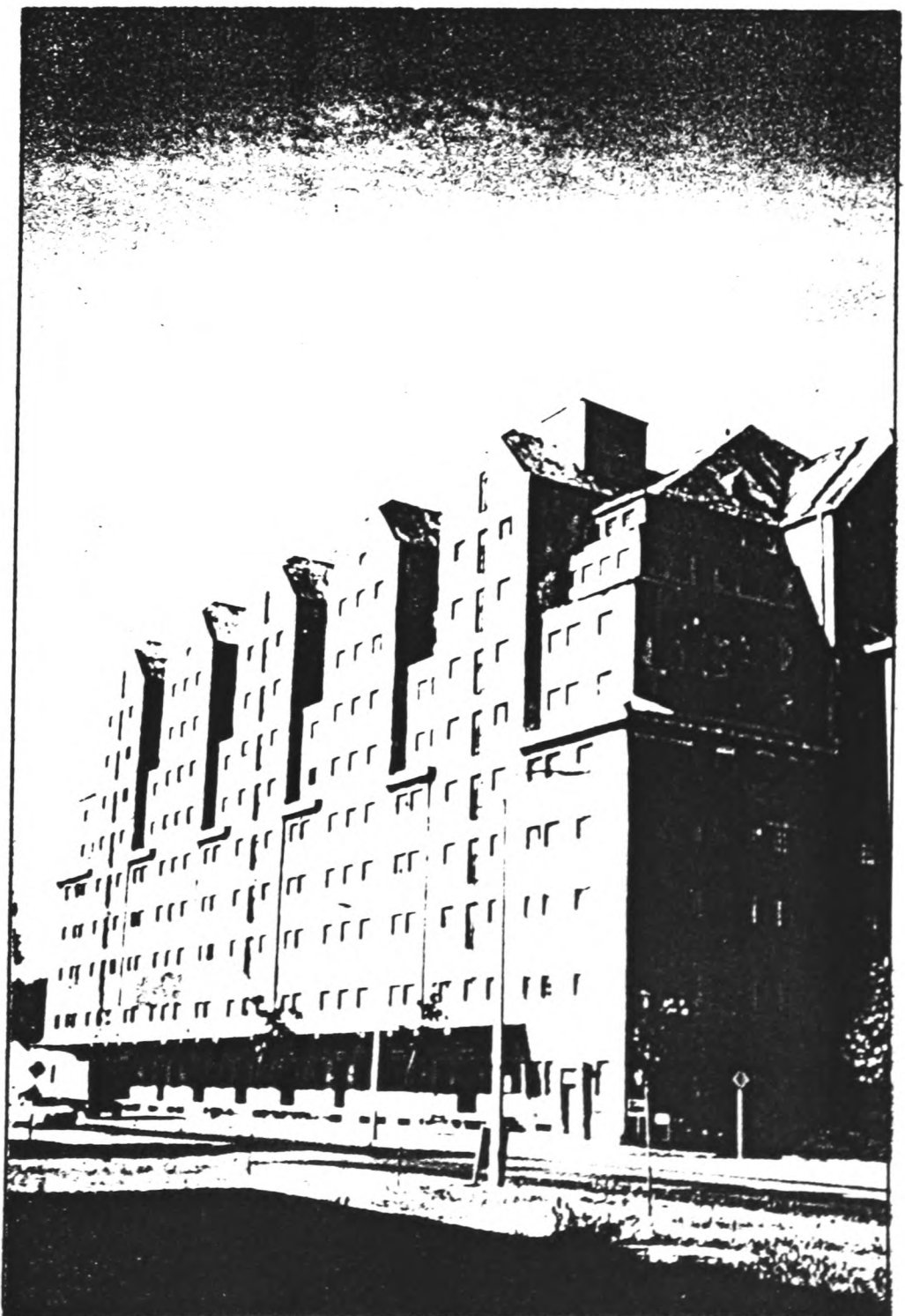
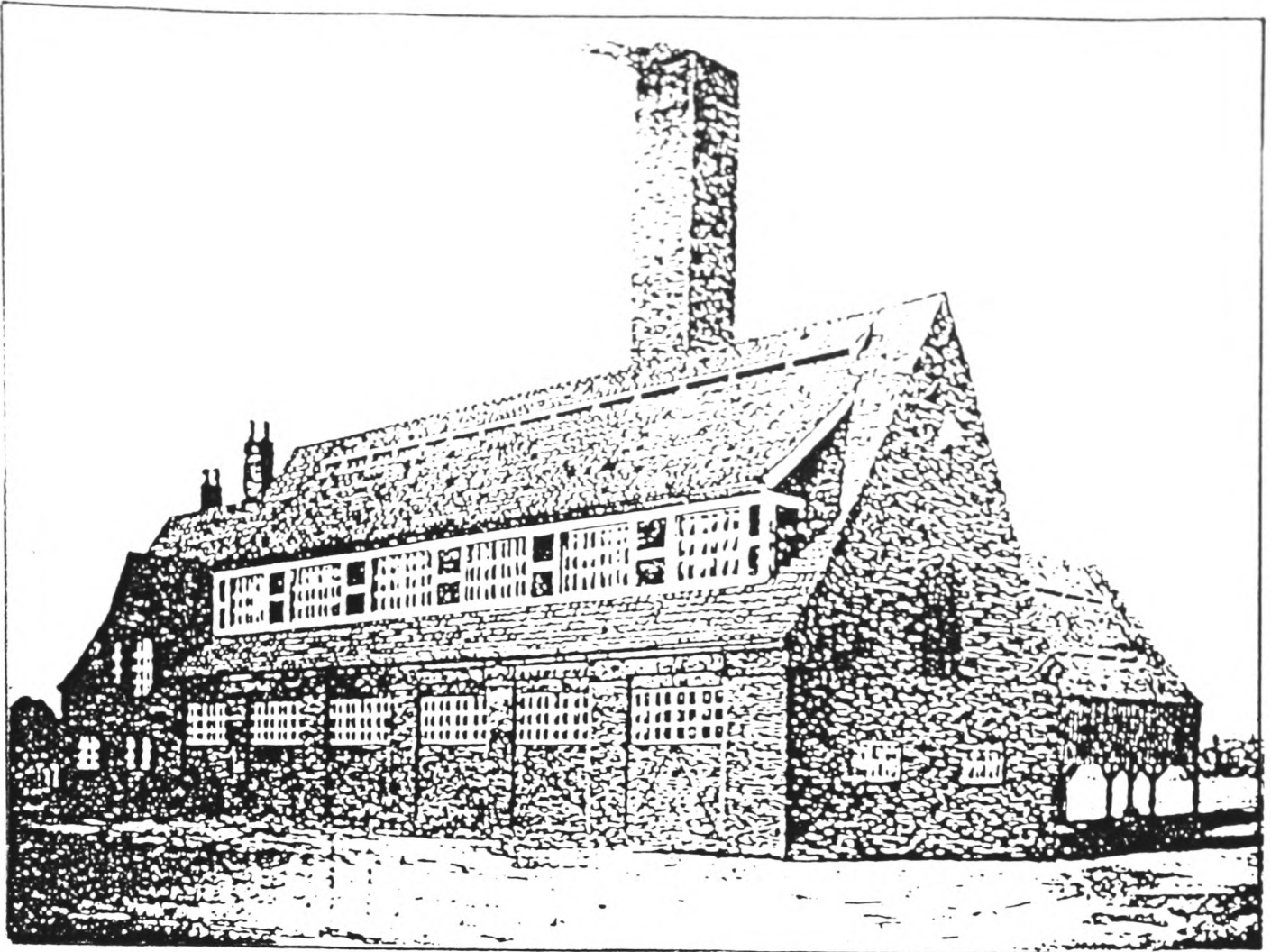


fig.46



Rope factory, Itzehoe c.1912. Arch. F.Höger.

'Deutsche Werkstätten' furniture factory gate, Dresden-Hellerau 1909.
Arch. R.Riemerschmid. Present condition.

fig.47

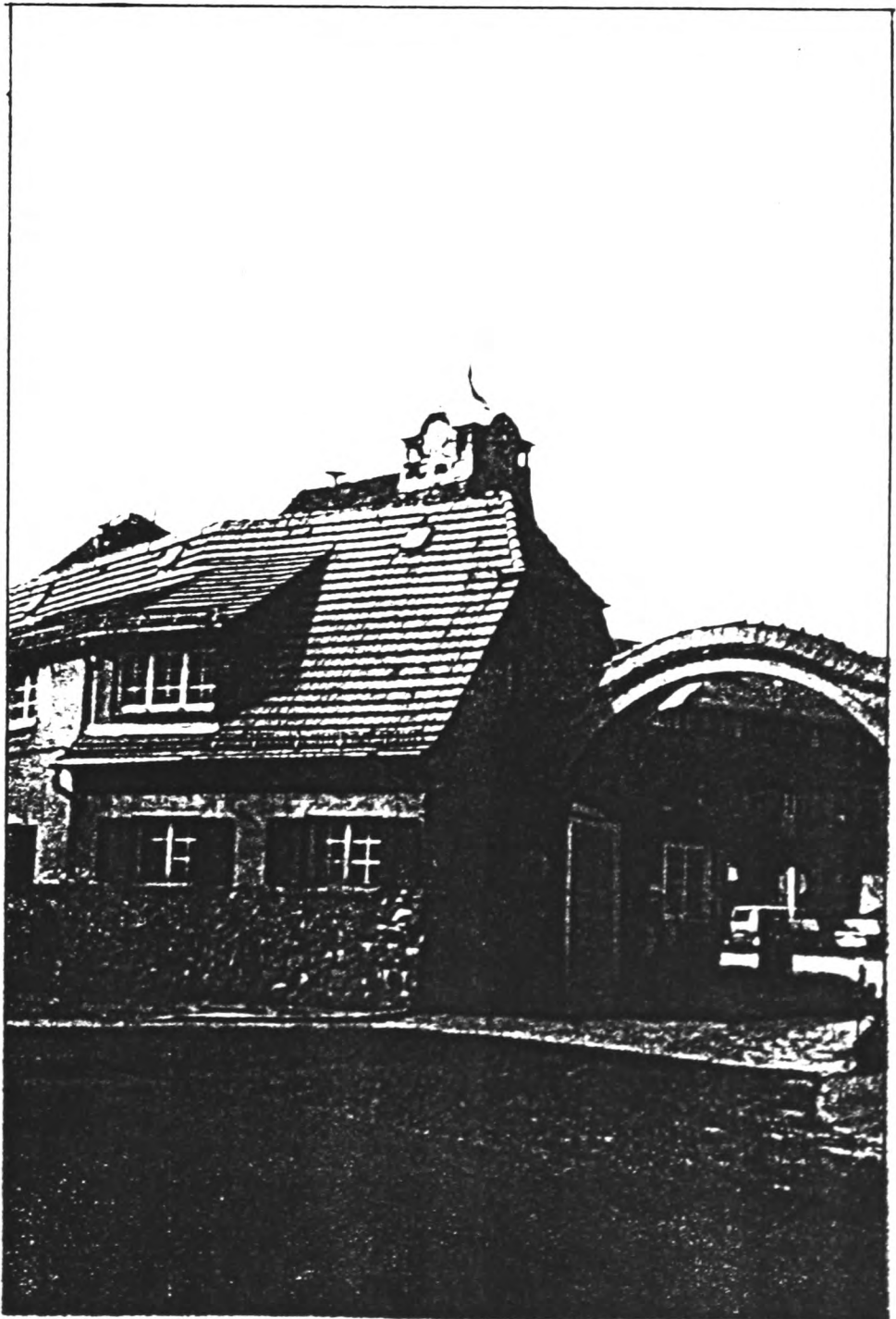
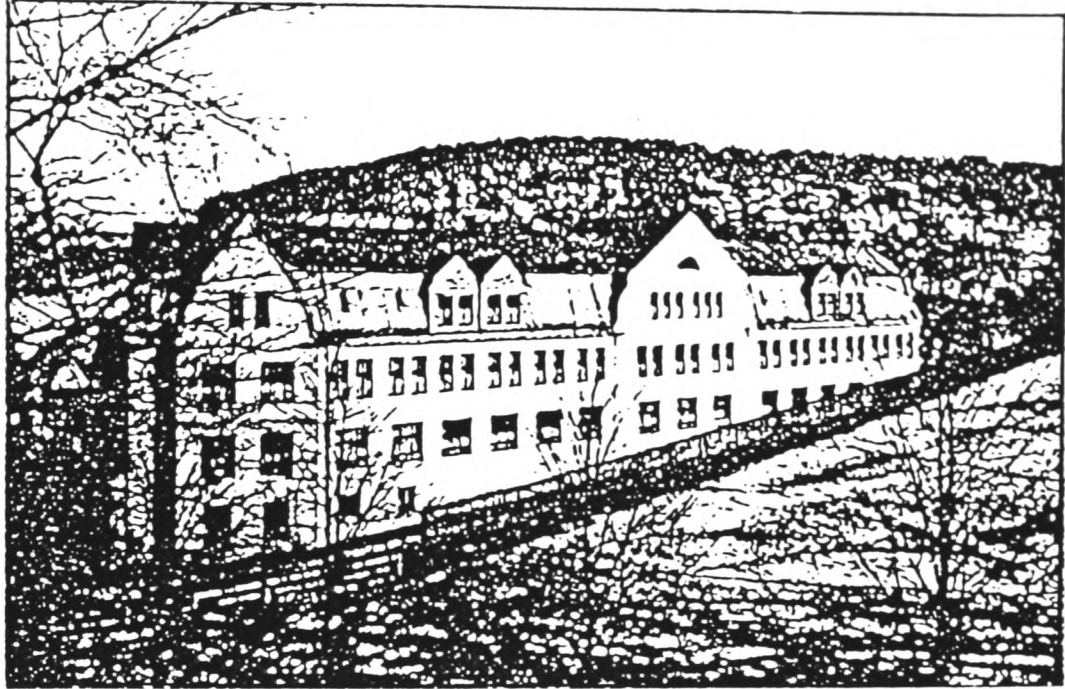


fig.48



'Deutsche Werkstätten' furniture factory
- workshops, Dresden-Hellerau 1909.
Arch. R.Riemerschmid. Present condition.

fig.49



H.W.Kemna ribbon factory, Barmen 1908. Arch. R.Schnell.

fig.50

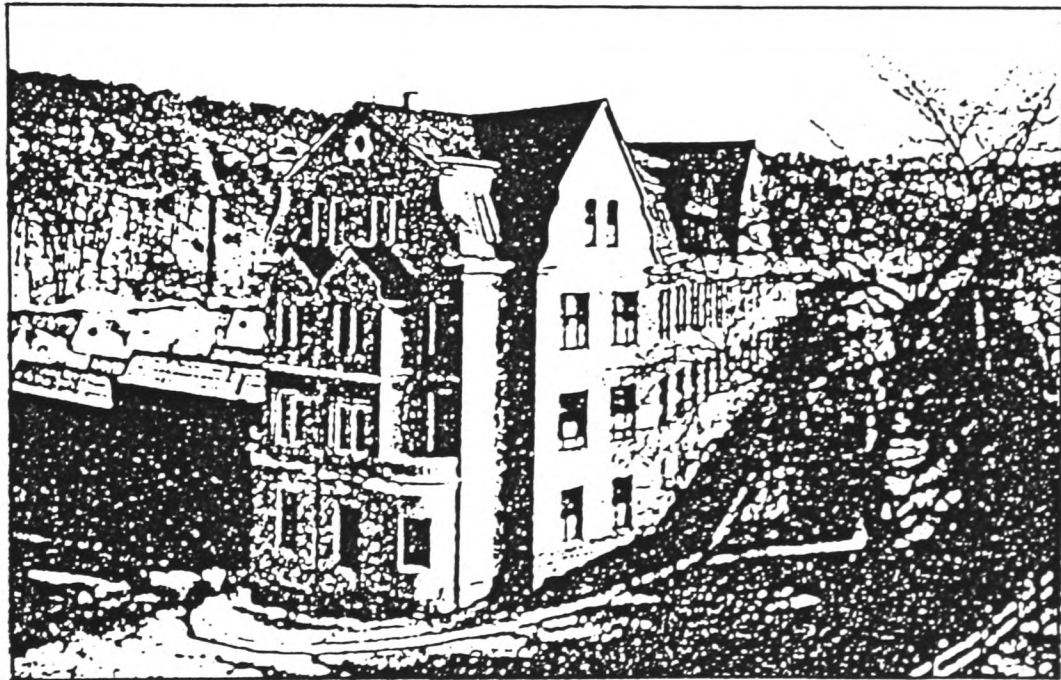
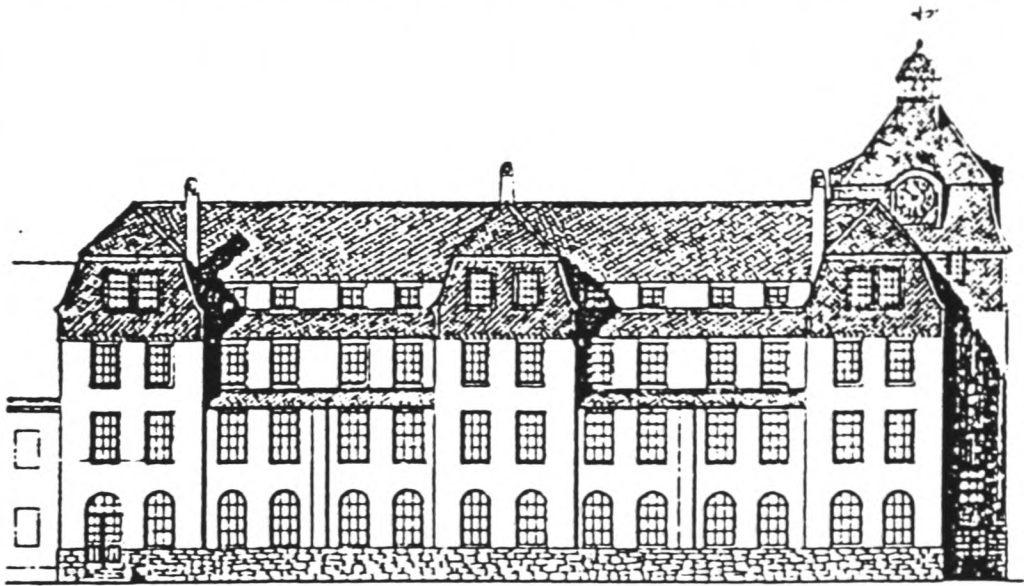
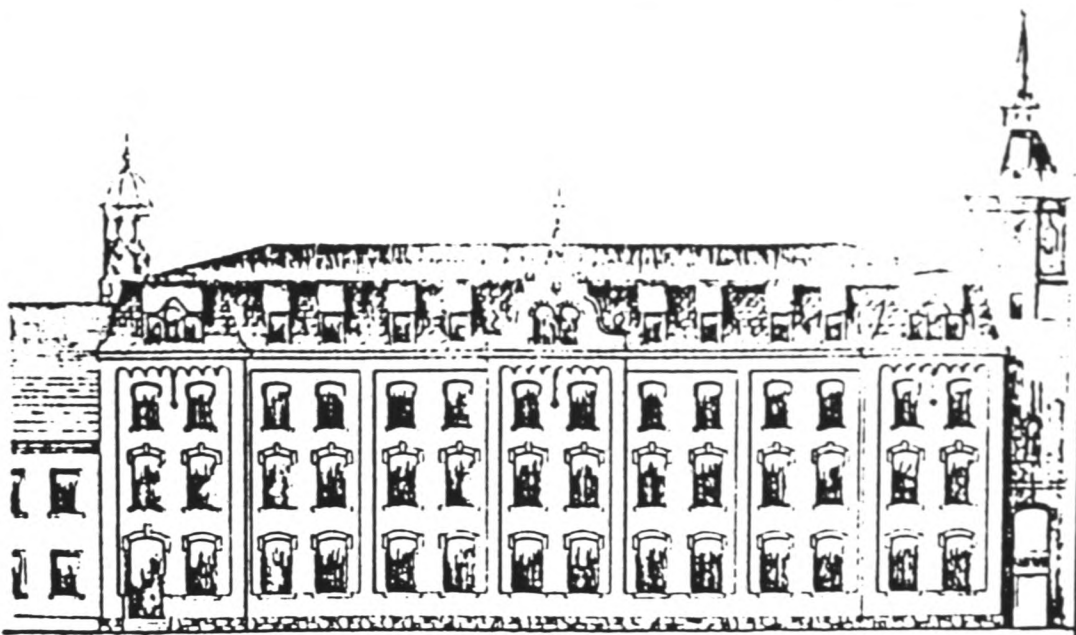
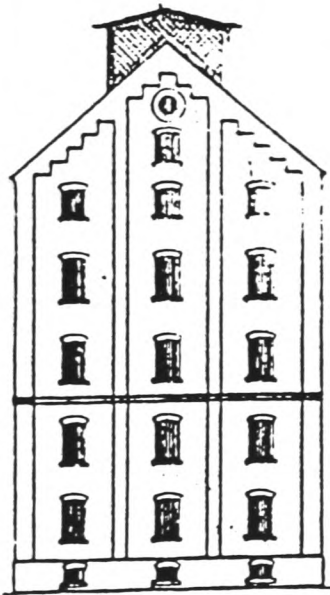


fig.51



Fabrikbau für das sächsische Erzgebirge.
Oben: eingereichter Entwurf; unten: Abänderungsvorschlag
von Brt. A. Grothe †.



Two examples from the 'Heimatschutz' group in Saxony of how to improve the quality of industrial architecture, at little extra cost to the client. In both cases, the top drawing illustrates the plan initially submitted to the authorities, and the bottom drawing shows the 'Heimatschutz' alternative.

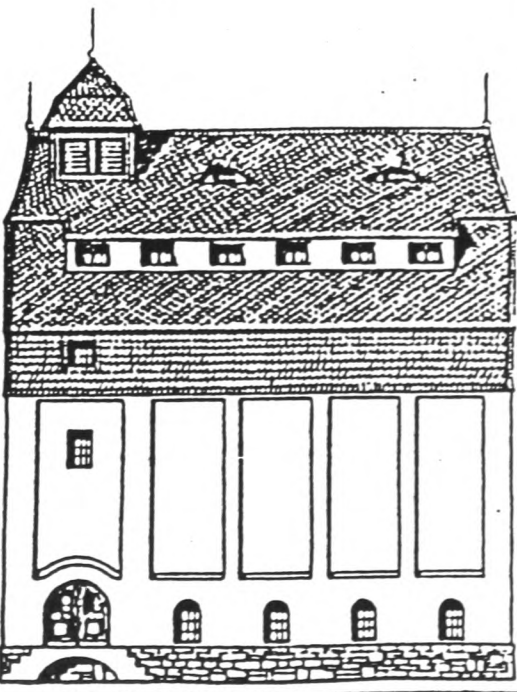
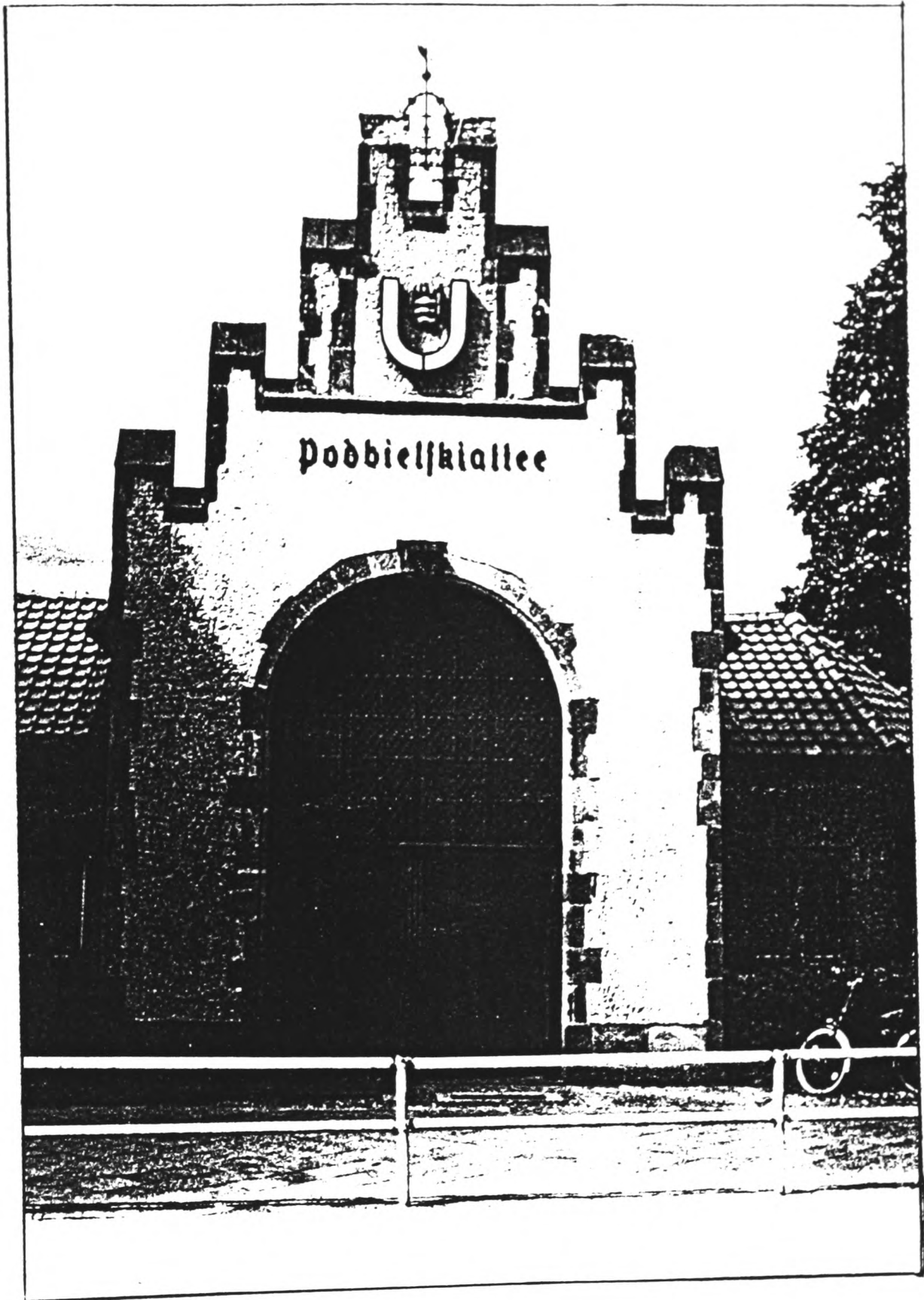


fig.52



Podbielskiallee railway station, Berlin 1912-13.
Arch. H.Schweitzer. Present condition.

fig.53



Dahlem Dorf railway station, Berlin 1912-13.
Arch. F.& W.Hennings. Present condition.

fig.54



Thielplatz railway station, Berlin 1912-13.
Arch. H. Straumer. Present condition.

fig.55

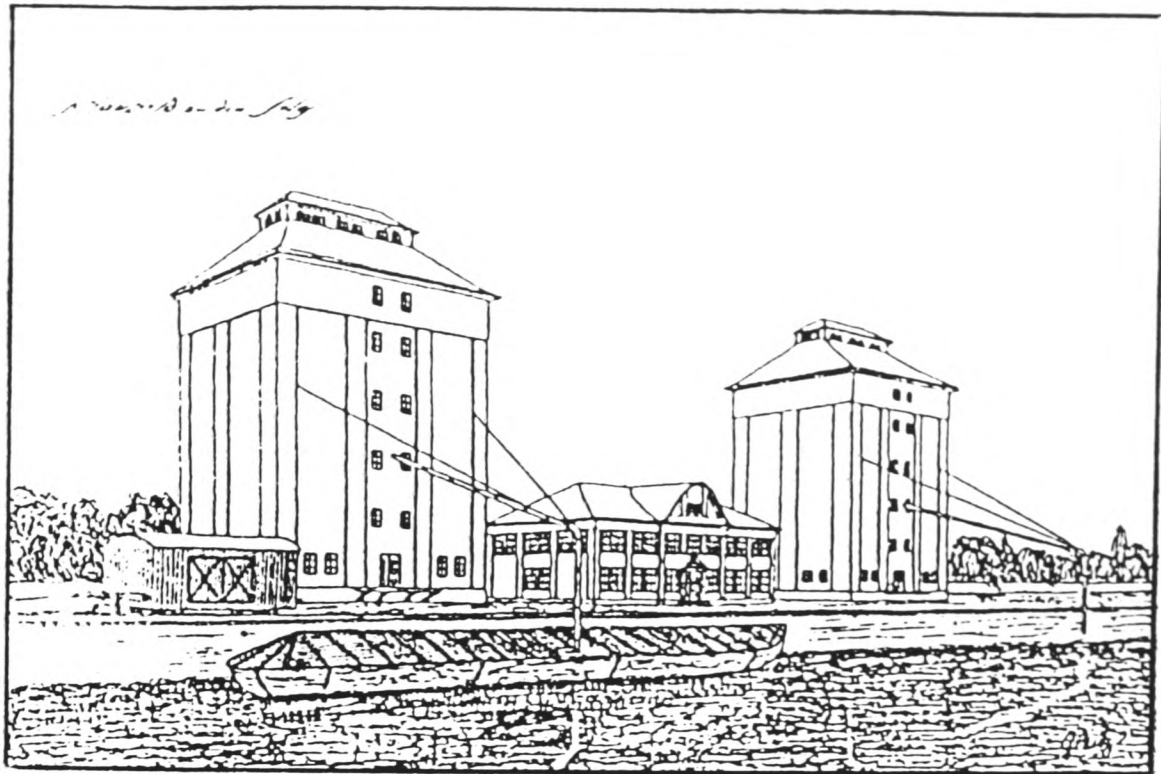


Abb. 1. Entwurf zu Silobauten. Ausgeführt in der Rgl. Baugewerkschule Stuttgart.

Some designs for industrial buildings produced by Prof. Paul Schmohl's classes at the Stuttgart 'Baugewerkschule'.

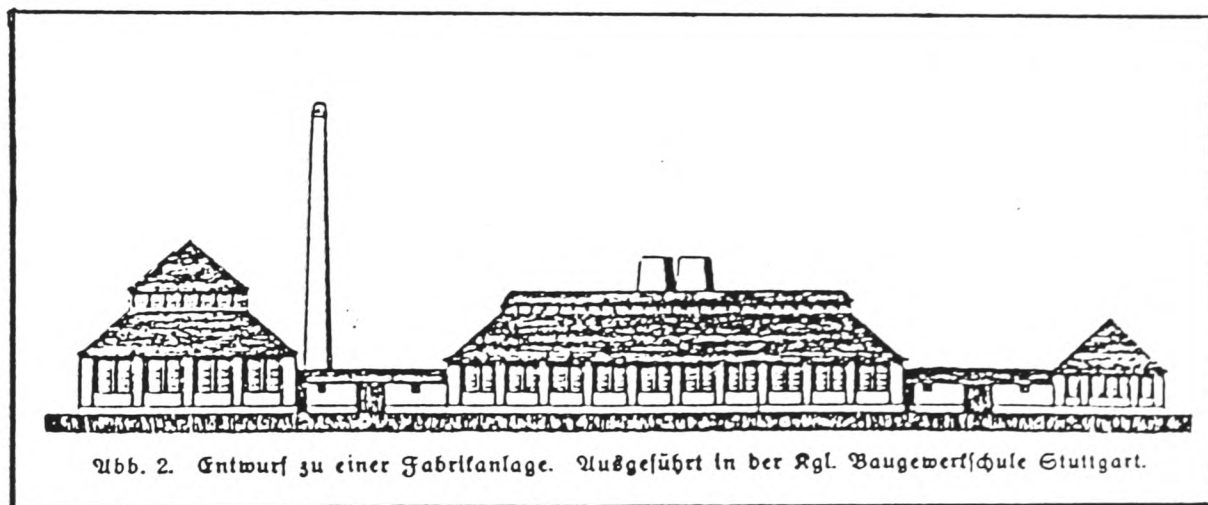


Abb. 2. Entwurf zu einer Fabrikanlage. Ausgeführt in der Rgl. Baugewerkschule Stuttgart.

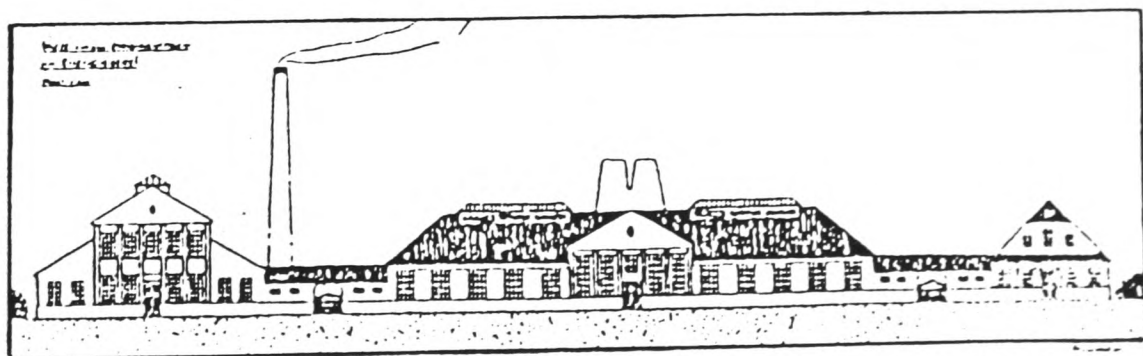
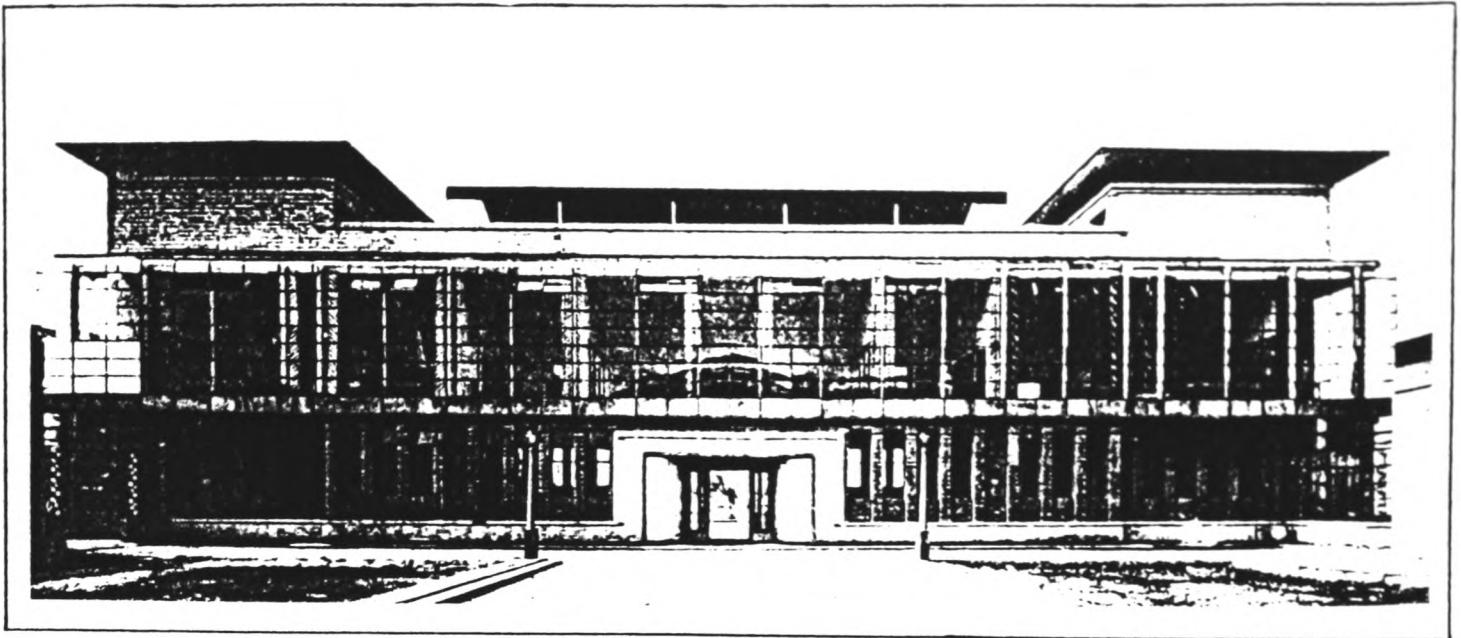


Abb. 3. Entwurf zu einer Fabrikanlage. Ausgeführt in der Rgl. Baugewerkschule Stuttgart.

fig.56

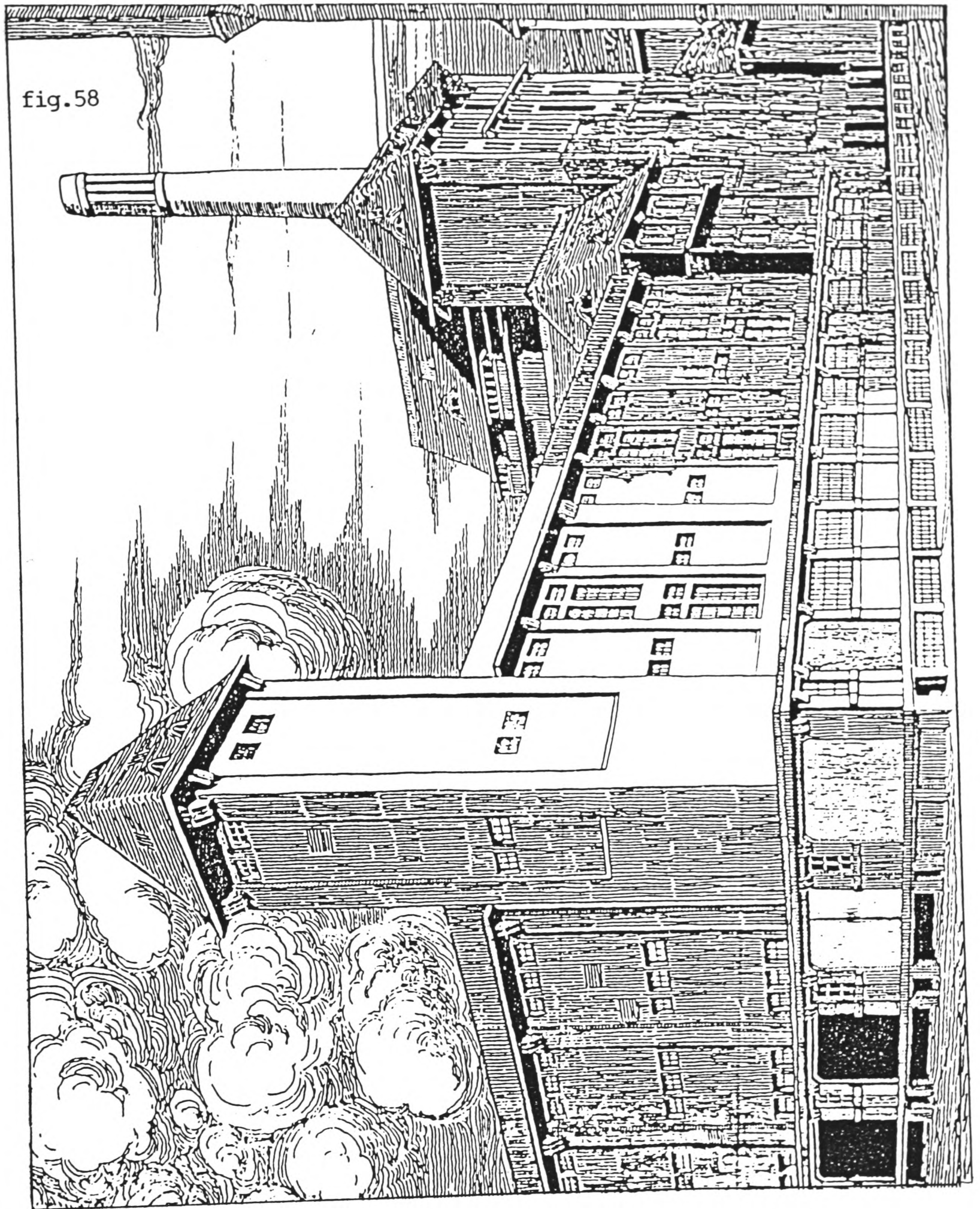


Model factory at the DWB exhibition, Cologne 1914. Arch. W.Gropius.

Poster for 'Kaffee HAG', Lucian Bernhard (DWB) 1909.

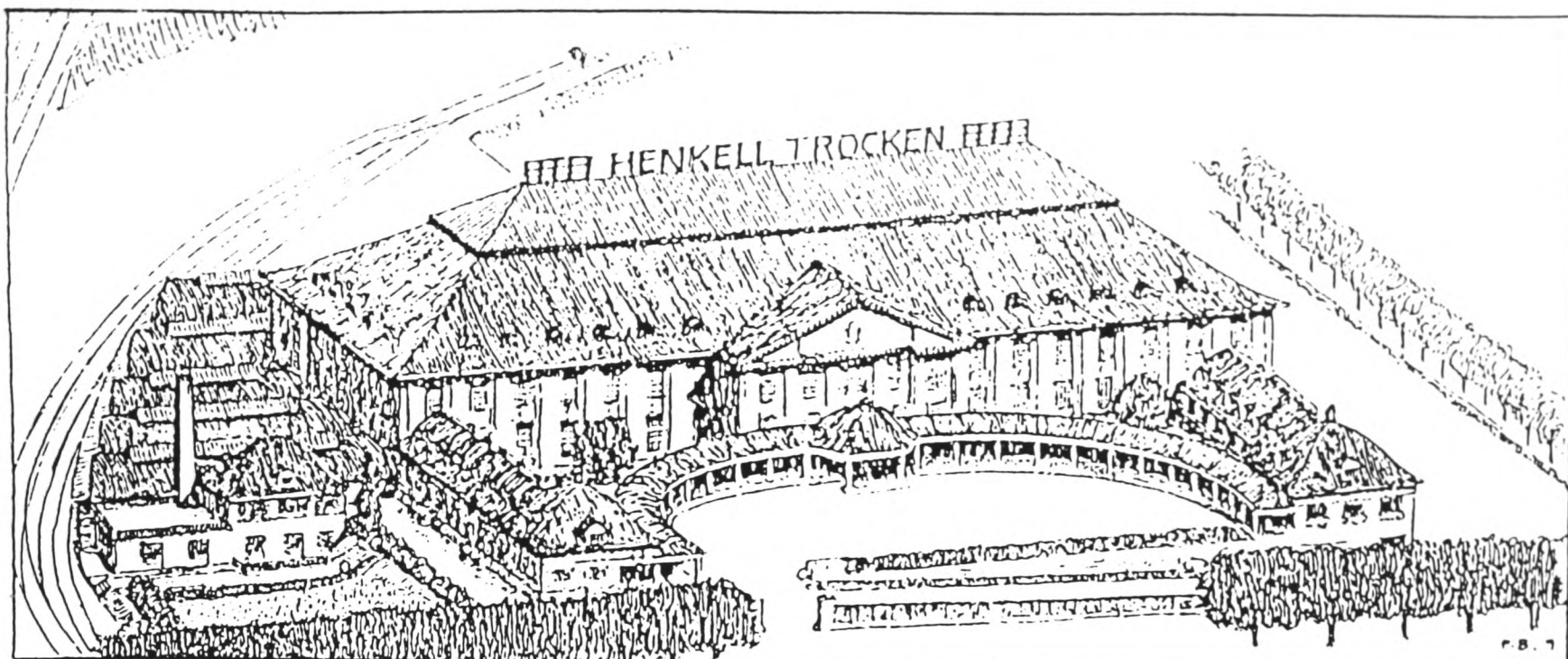
fig.57





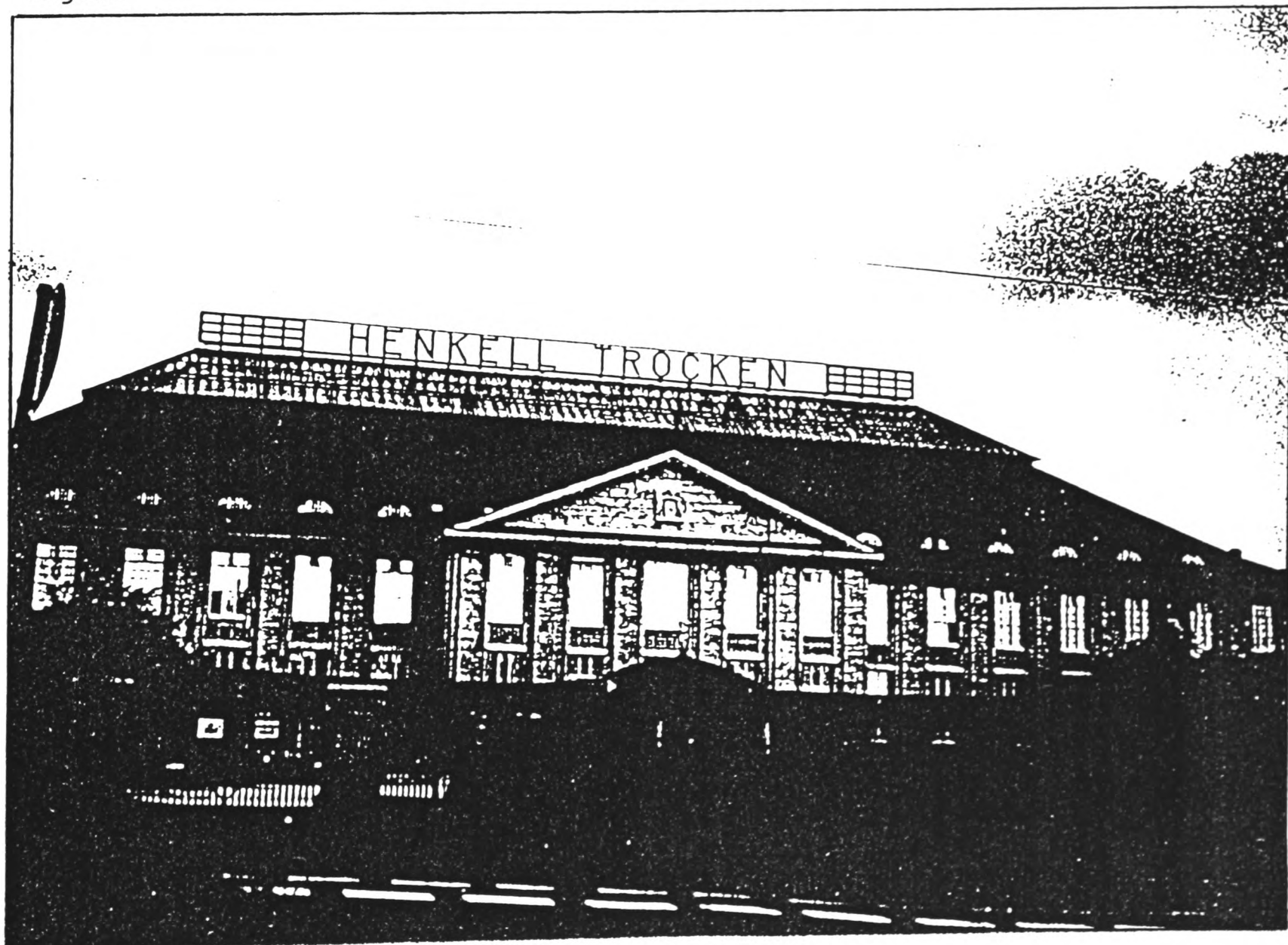
'Kaffee HAG' factory, Bremen 1906. Arch. H.Wagner.

fig.59

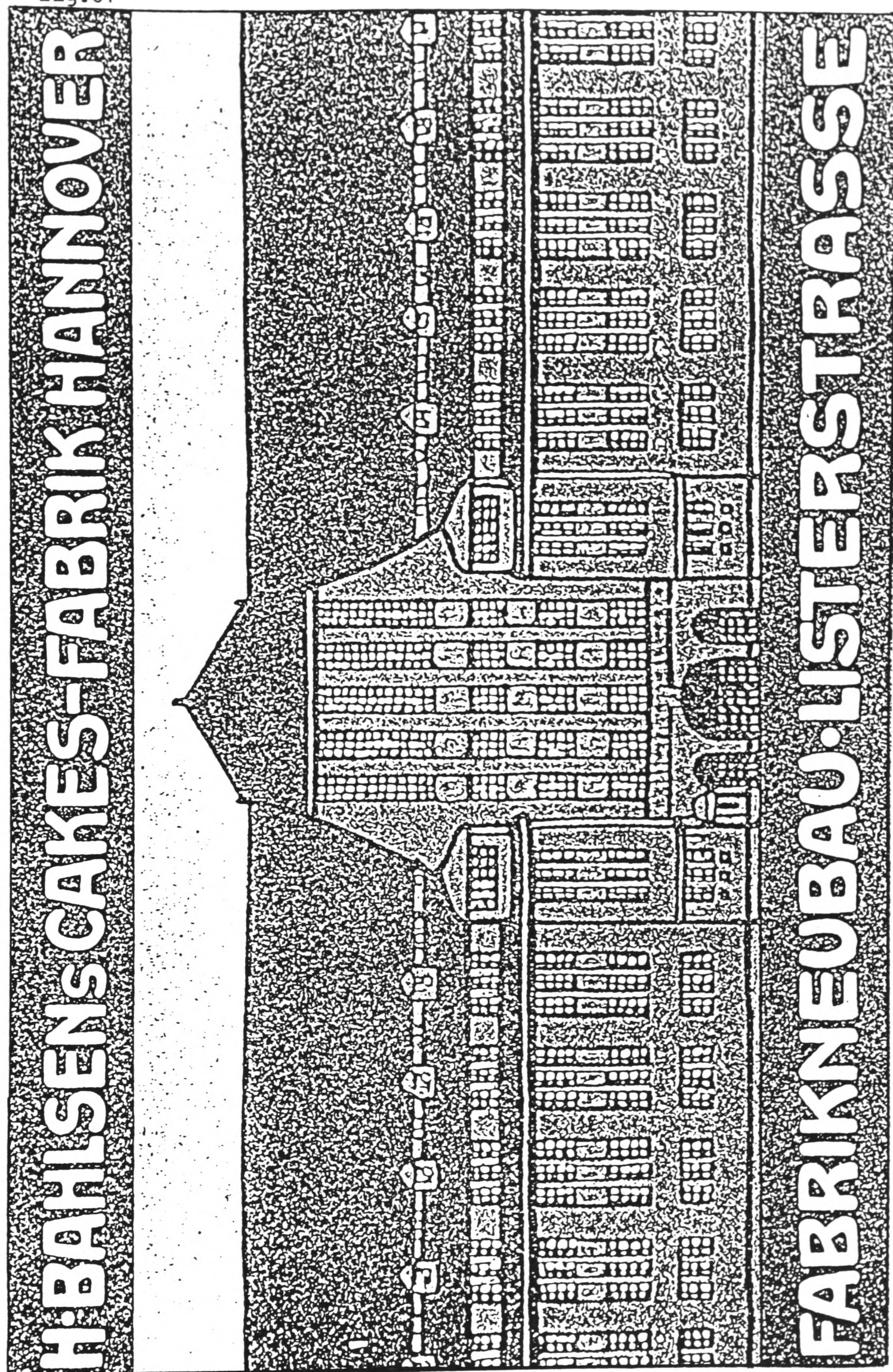


Henkell champagne company headquarters, Wiesbaden-Biebrich 1907-9.
Drawing by Arch. P.Bonatz.

fig.60

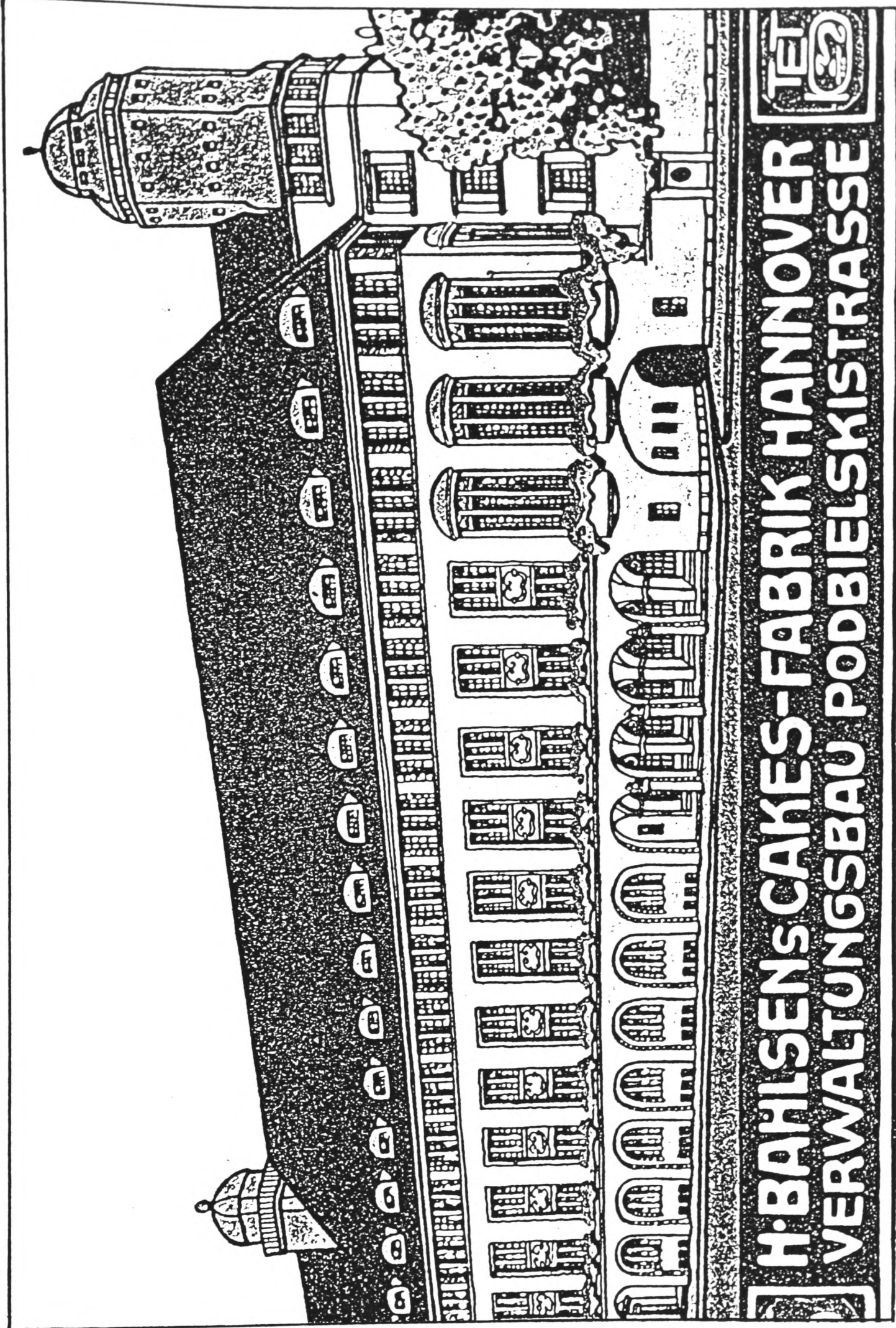


Henkell champagne company headquarters, Wiesbaden-Biebrich 1907-9.
Arch. P.Bonatz. Present condition.



H. Bahlens biscuit factory, Hanover 1911. Arch. K. Siebrecht.
Print by Aenne Koken (DWB).

fig.62



H. Bahlens biscuit factory, administrative building, Hanover 1911.
 Arch. K. Siebrecht. Print by Aenne Koken (DWB).

fig.63



L.Loewe & Co. AG, office and warehouse, Berlin-Moabit 1907.
Arch. A.Grenander.

fig.64



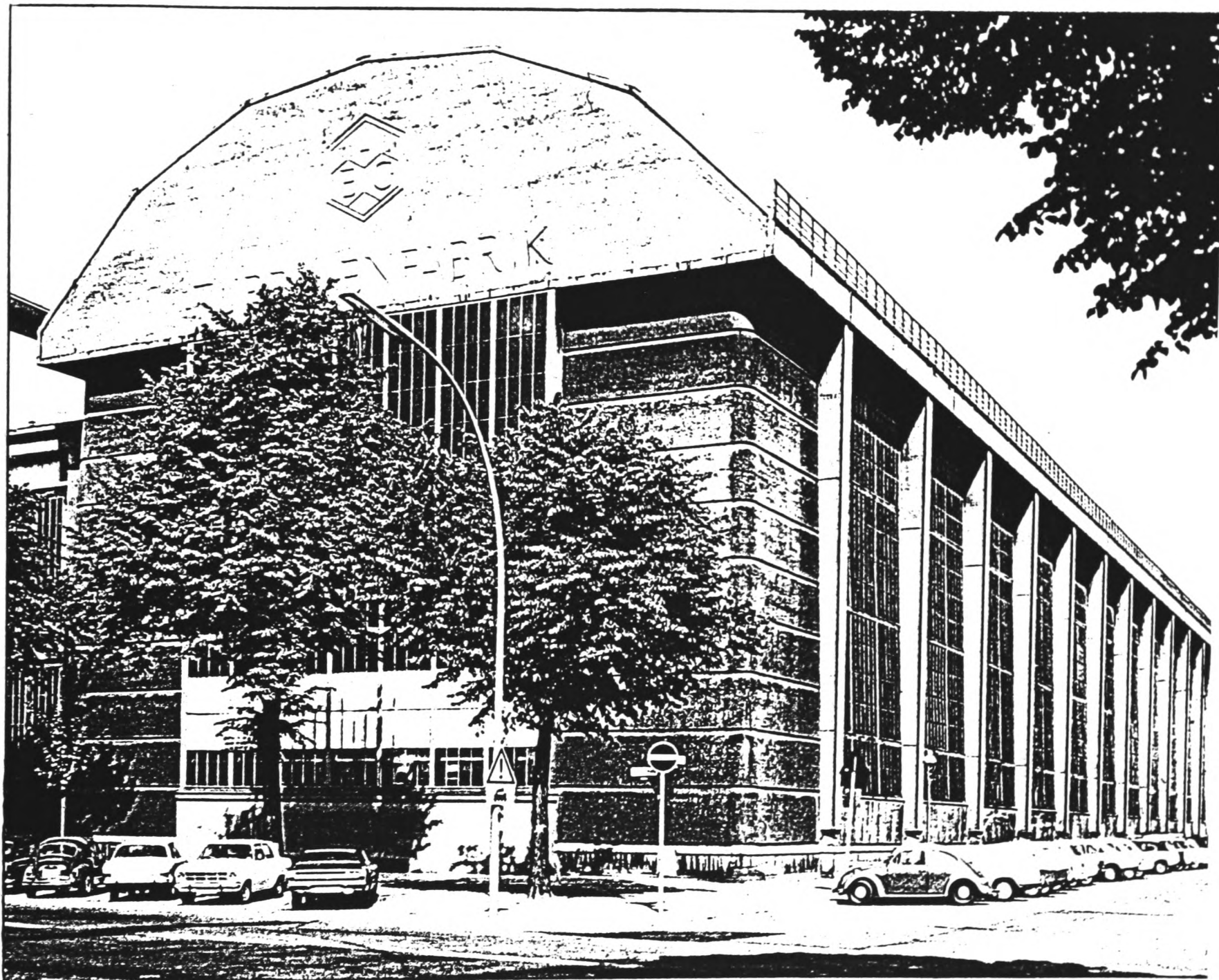
L.Loewe & Co. AG, office and warehouse, Berlin-Moabit
Arch. A.Grenander. Present condition.

fig.65



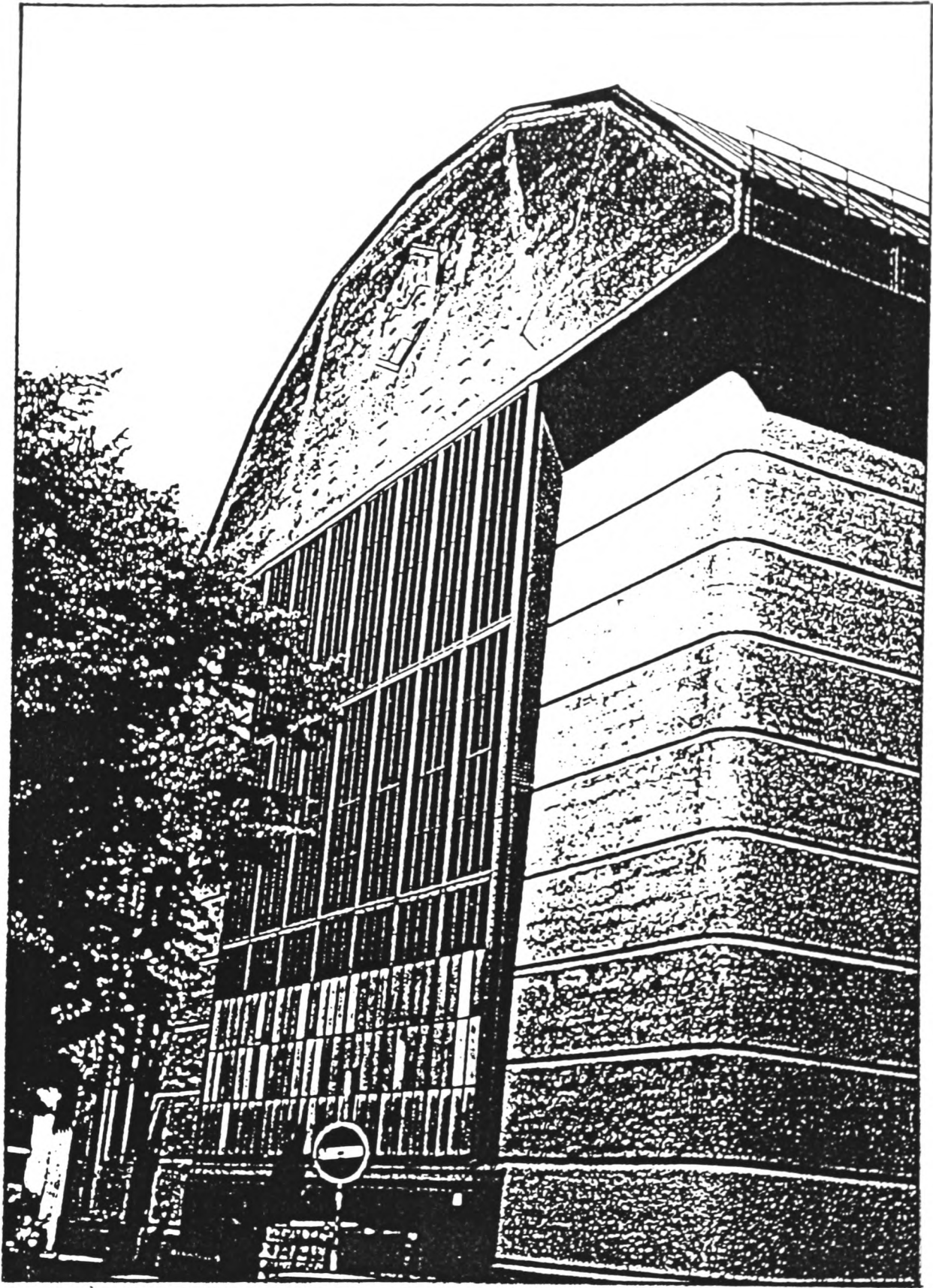
L.Loewe & Co. AG, machine tool factory, Berlin-Moabit 1913.
Arch. A.Grenander. Present condition.

fig.66



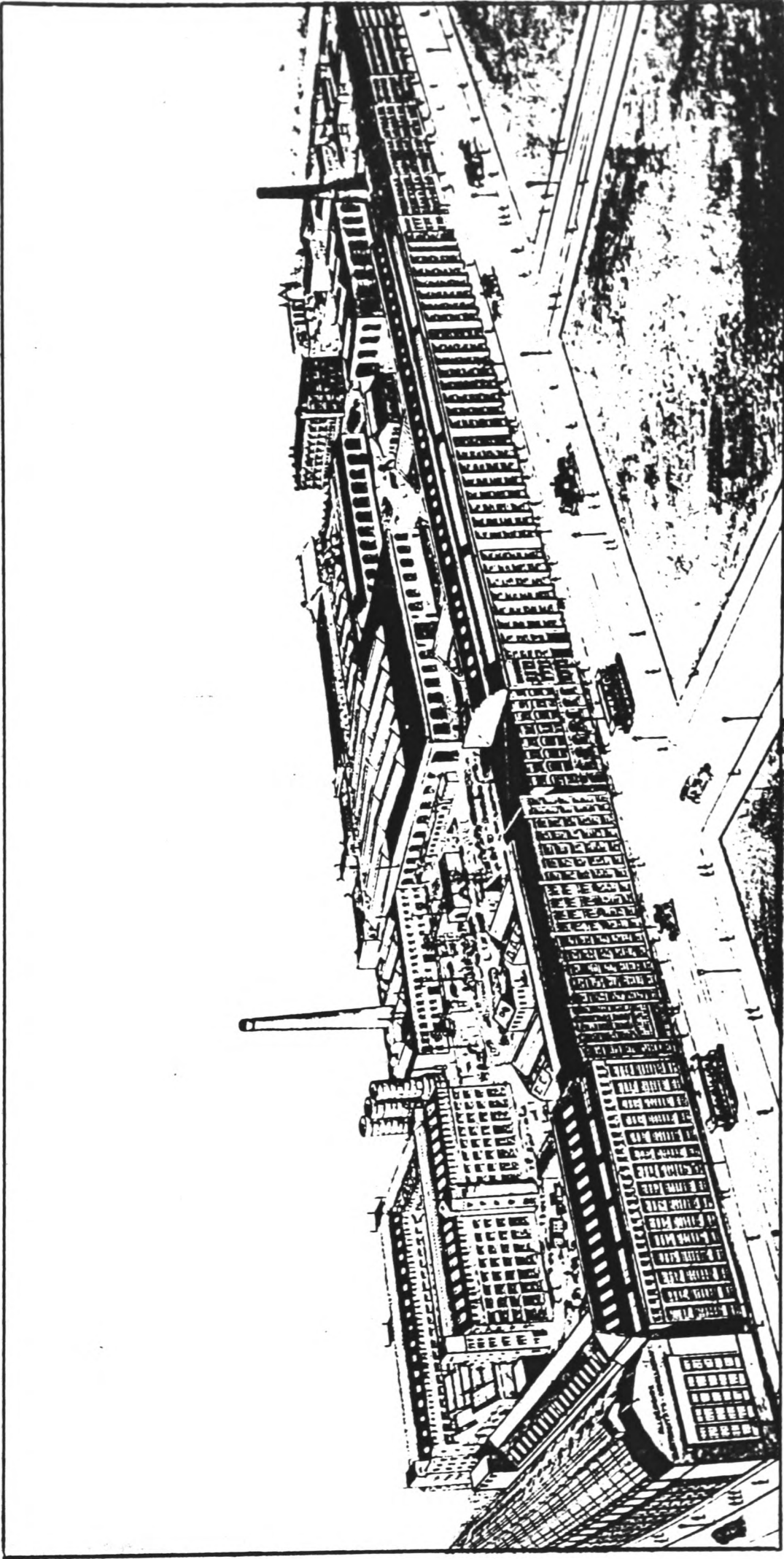
AEG turbine factory (Huttenstraße/Berlichingenstraße)
Berlin-Moabit 1909. Arch. P.Behrens.

fig.67

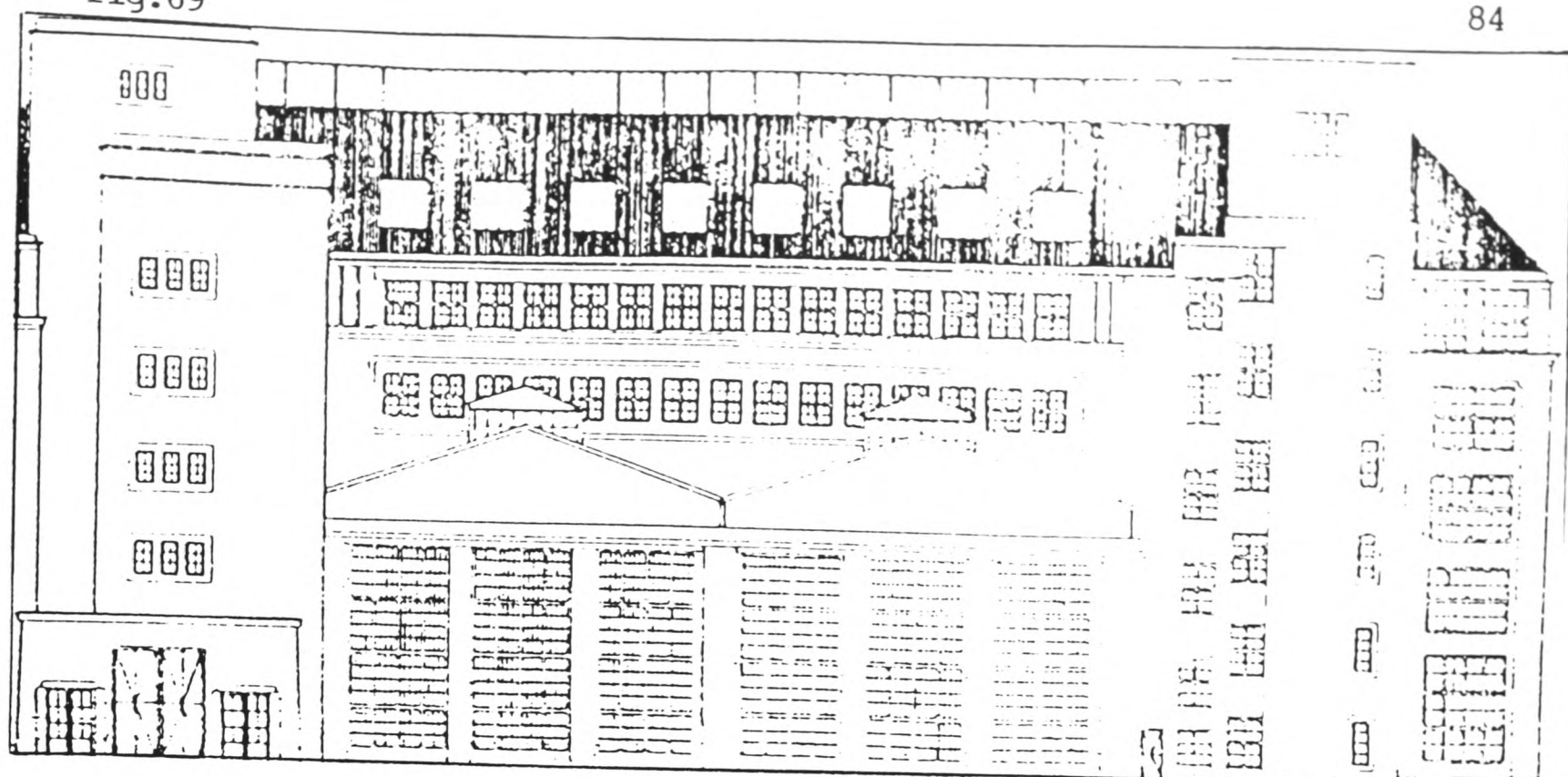


AEG turbine factory (Huttenstraße end) Berlin-Moabit 1909.
Present condition.

fig.68

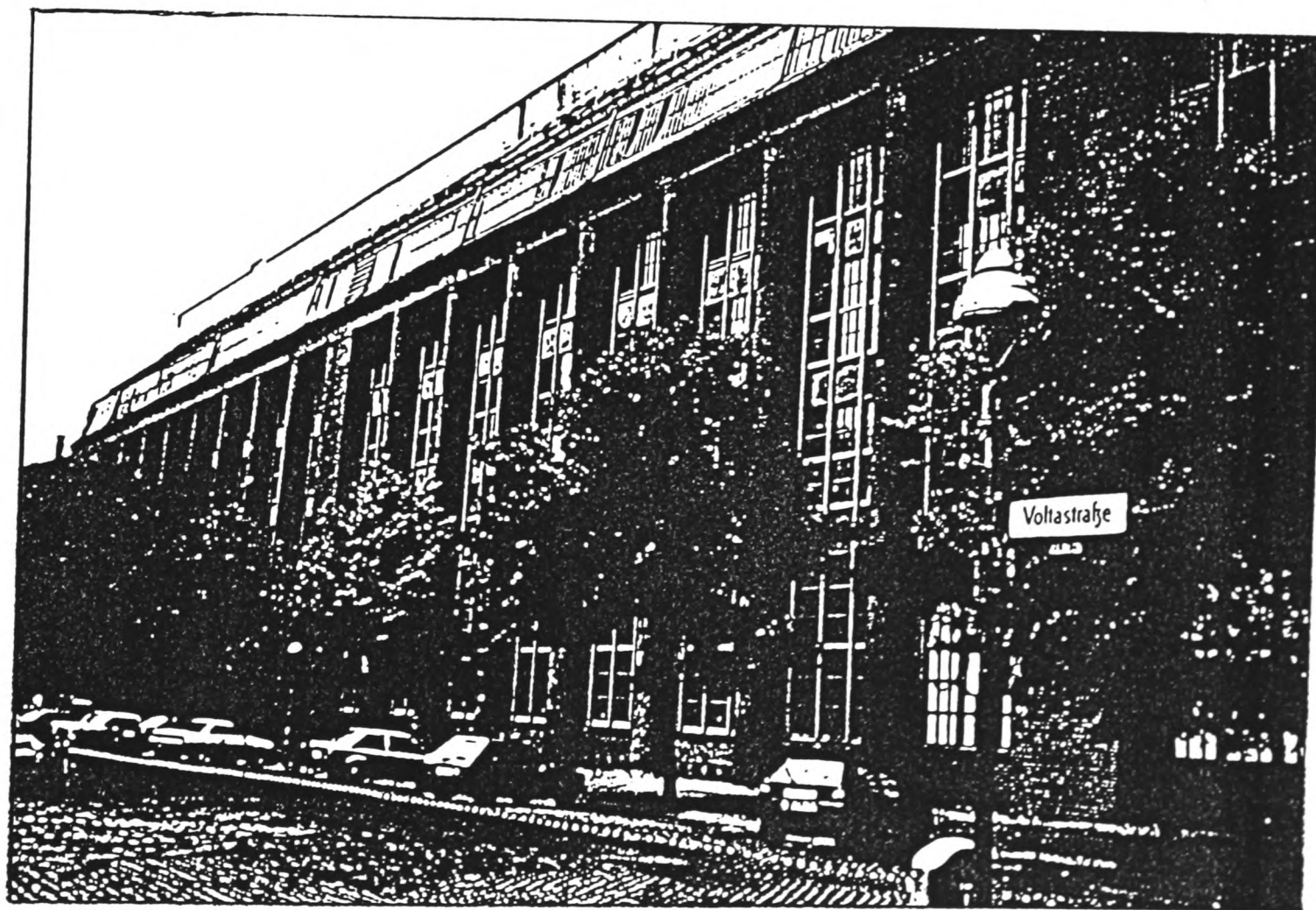


AEG Brunnenstraße complex, Berlin-Wedding.



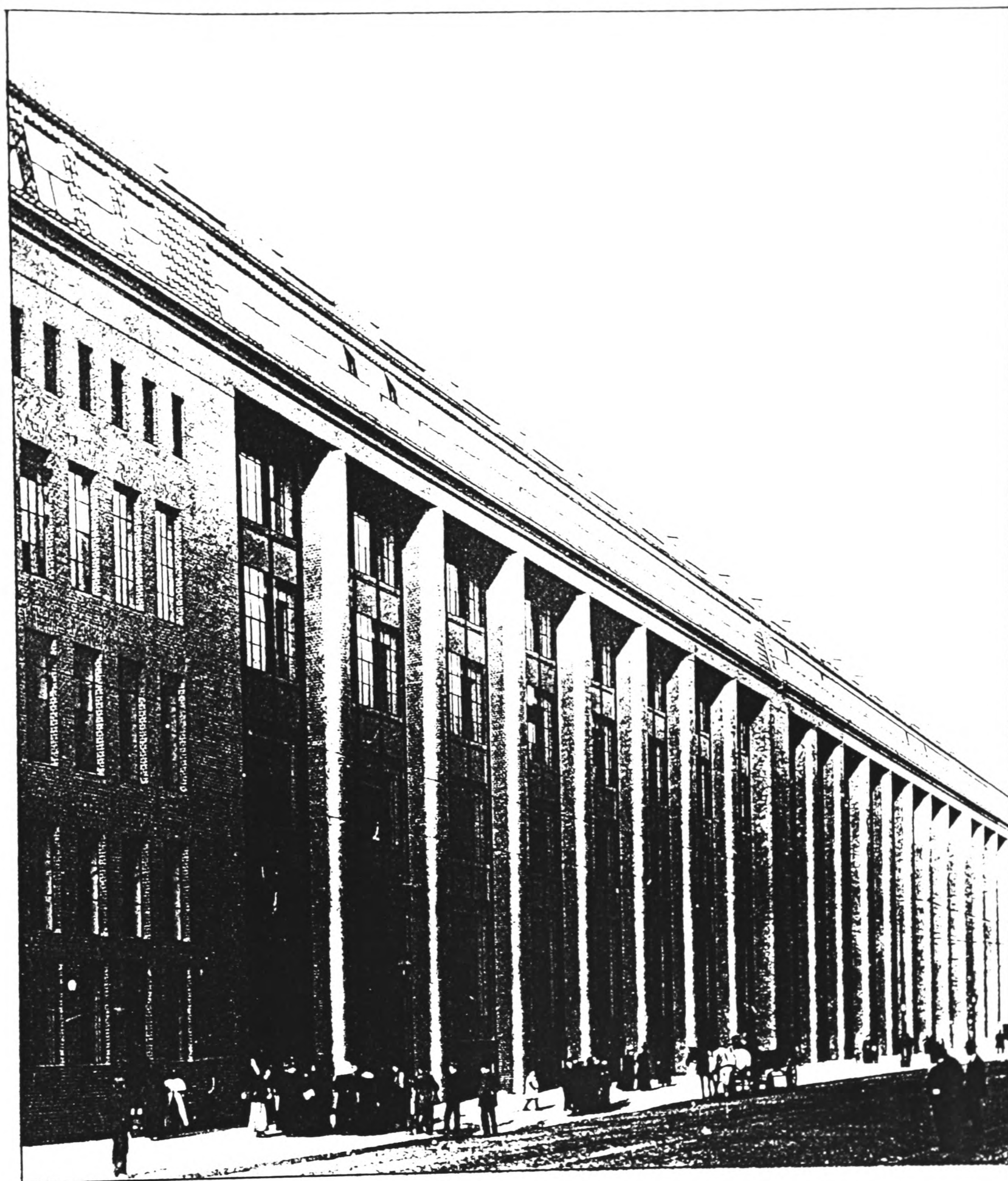
AEG high tension factory (eastern elevation), Berlin-Wedding 1910.
Arch. P.Behrens.

fig.70



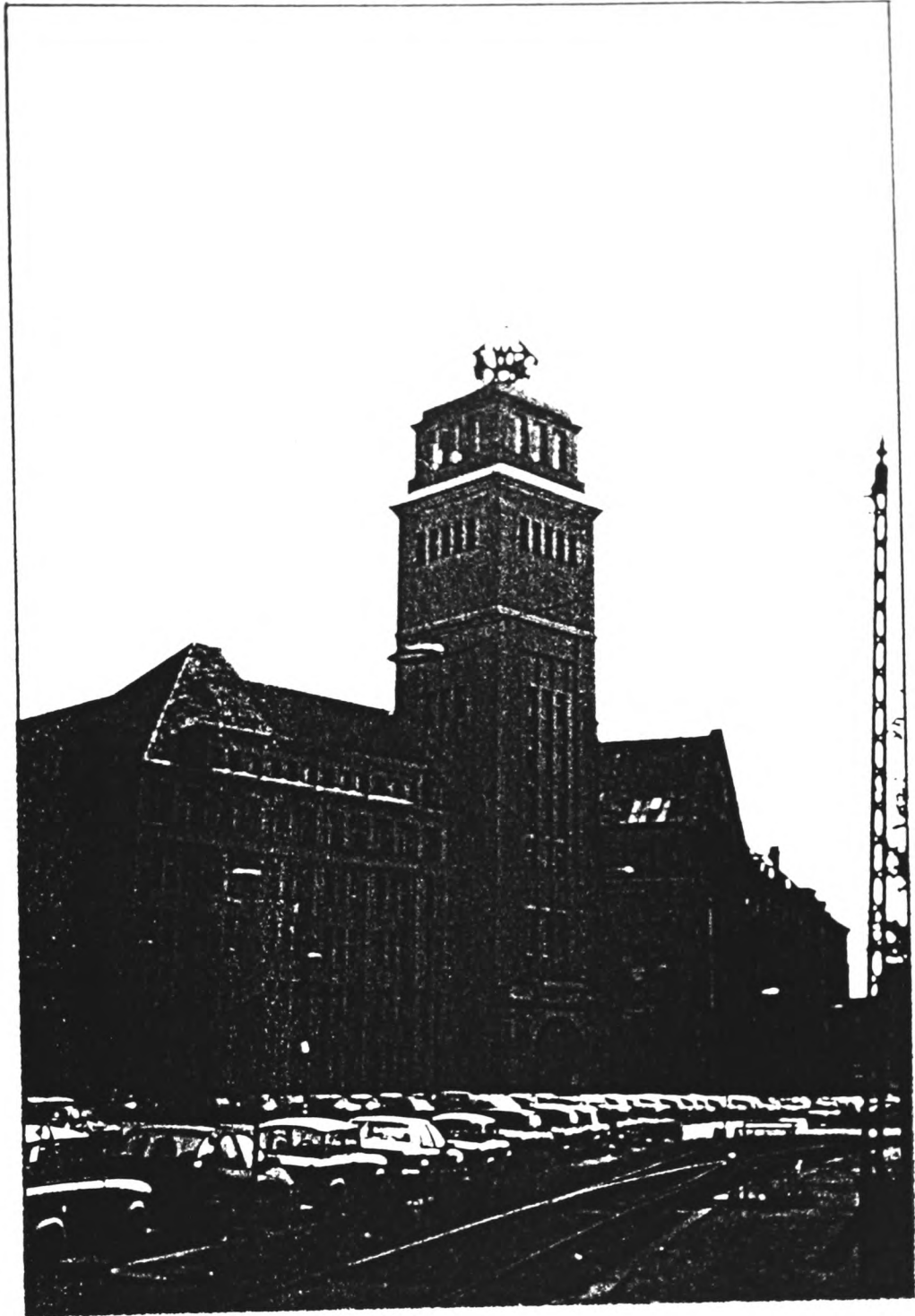
AEG small motors factory, Berlin-Wedding 1910-13. Arch. P.Behrens.
Present condition.

fig.71



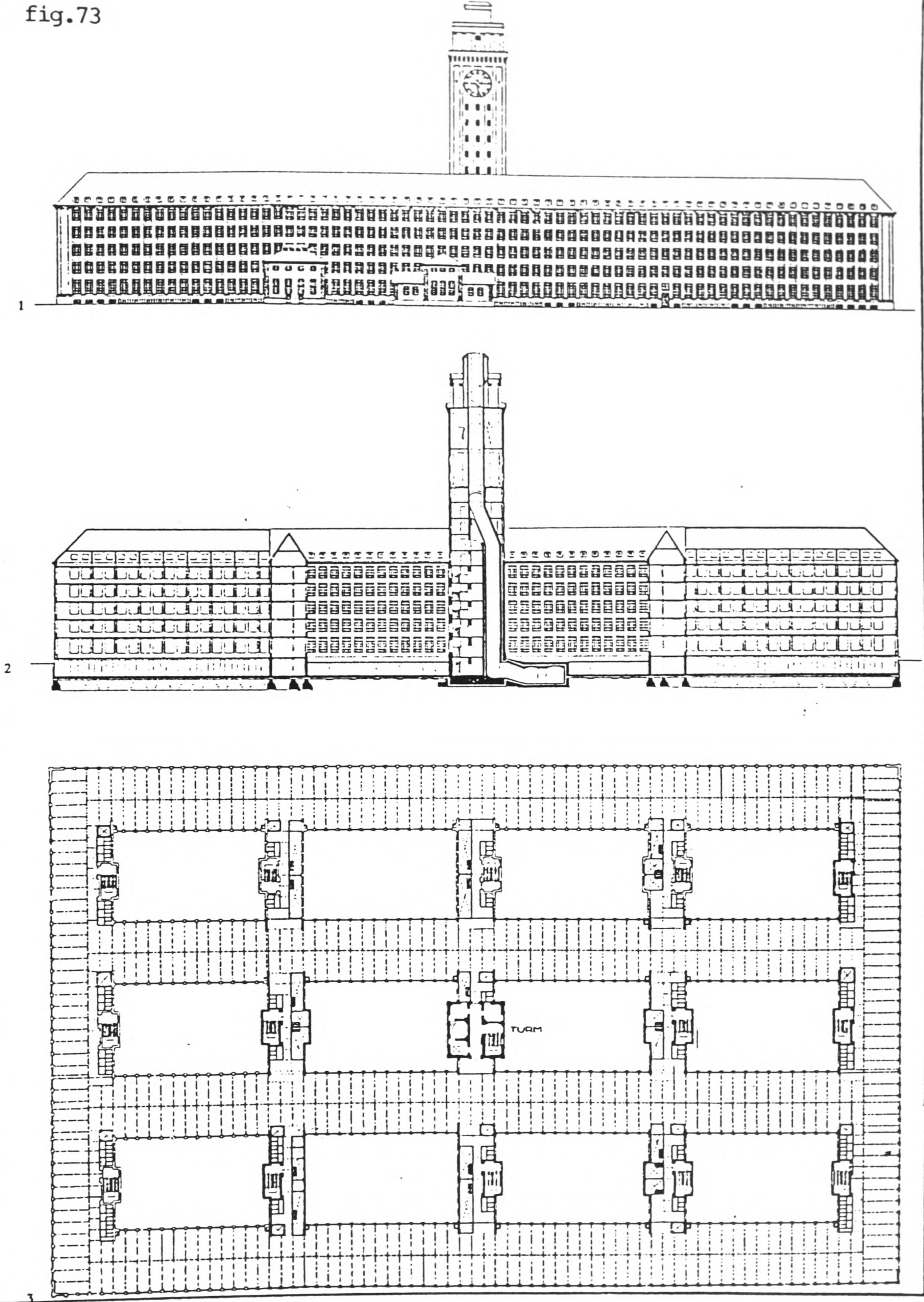
AEG small motors factory, Berlin-Wedding 1910-13. Arch. P.Behrens.

fig.72



NAG factory, Berlin-Oberschöneweide 1915-16. Arch. P.Behrens.
Present condition.

fig.73



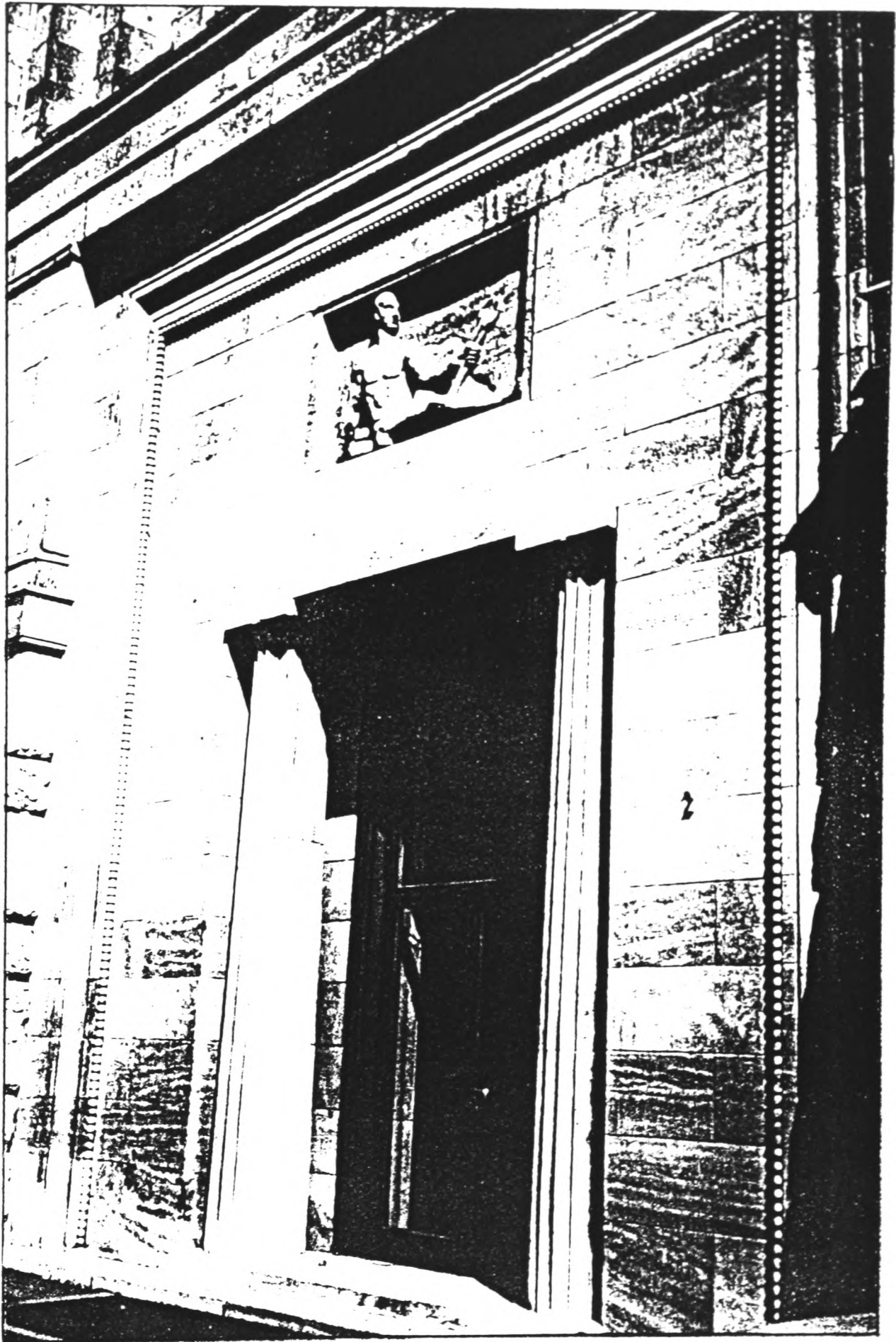
Siemens 'Wernerwerk M', Berlin-Siemensstadt 1917. Arch. H.Hertlein.

fig.74



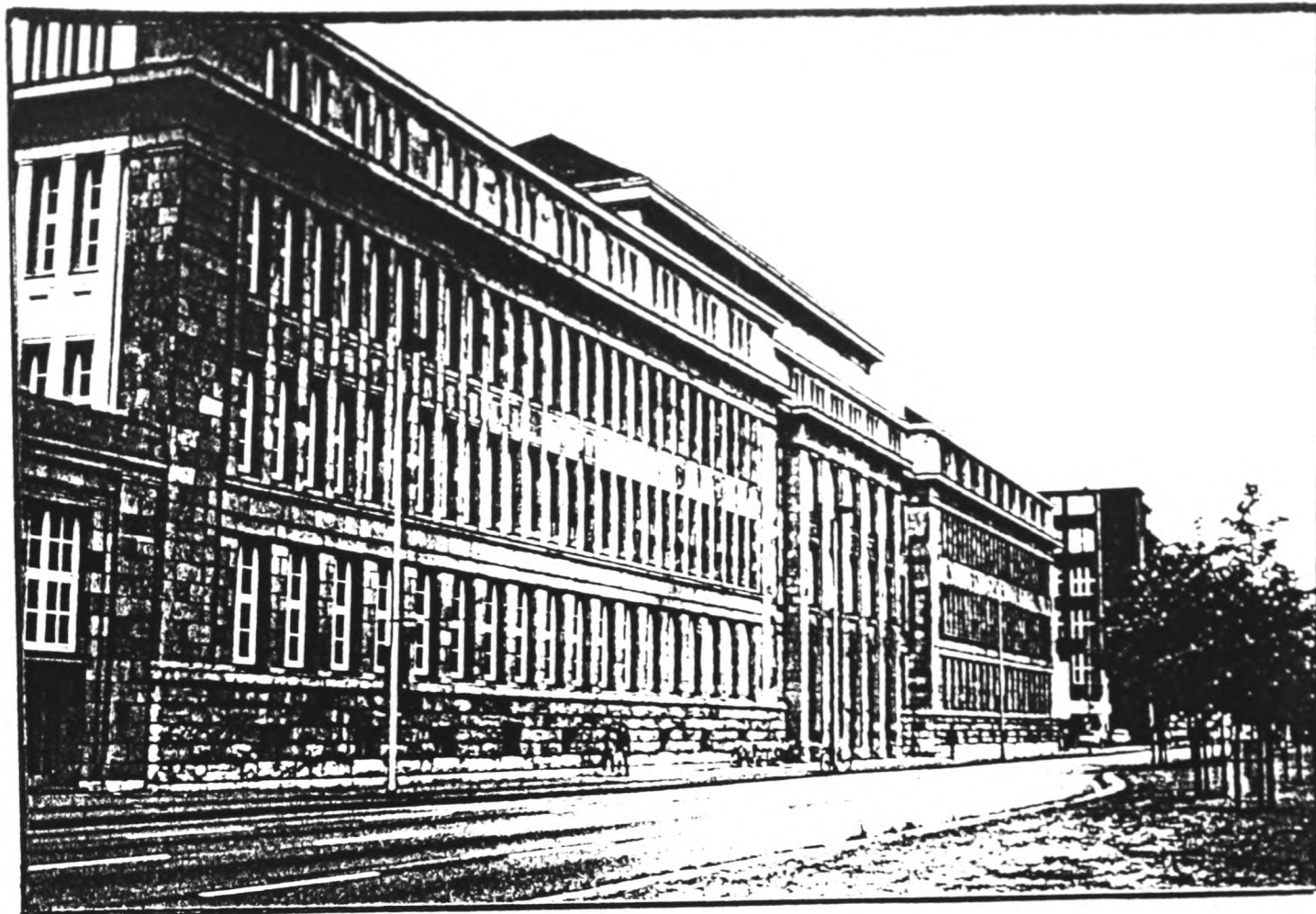
Mannesmann administrative building, Düsseldorf 1911-12.
Arch. P. Behrens. Present condition.

fig.75



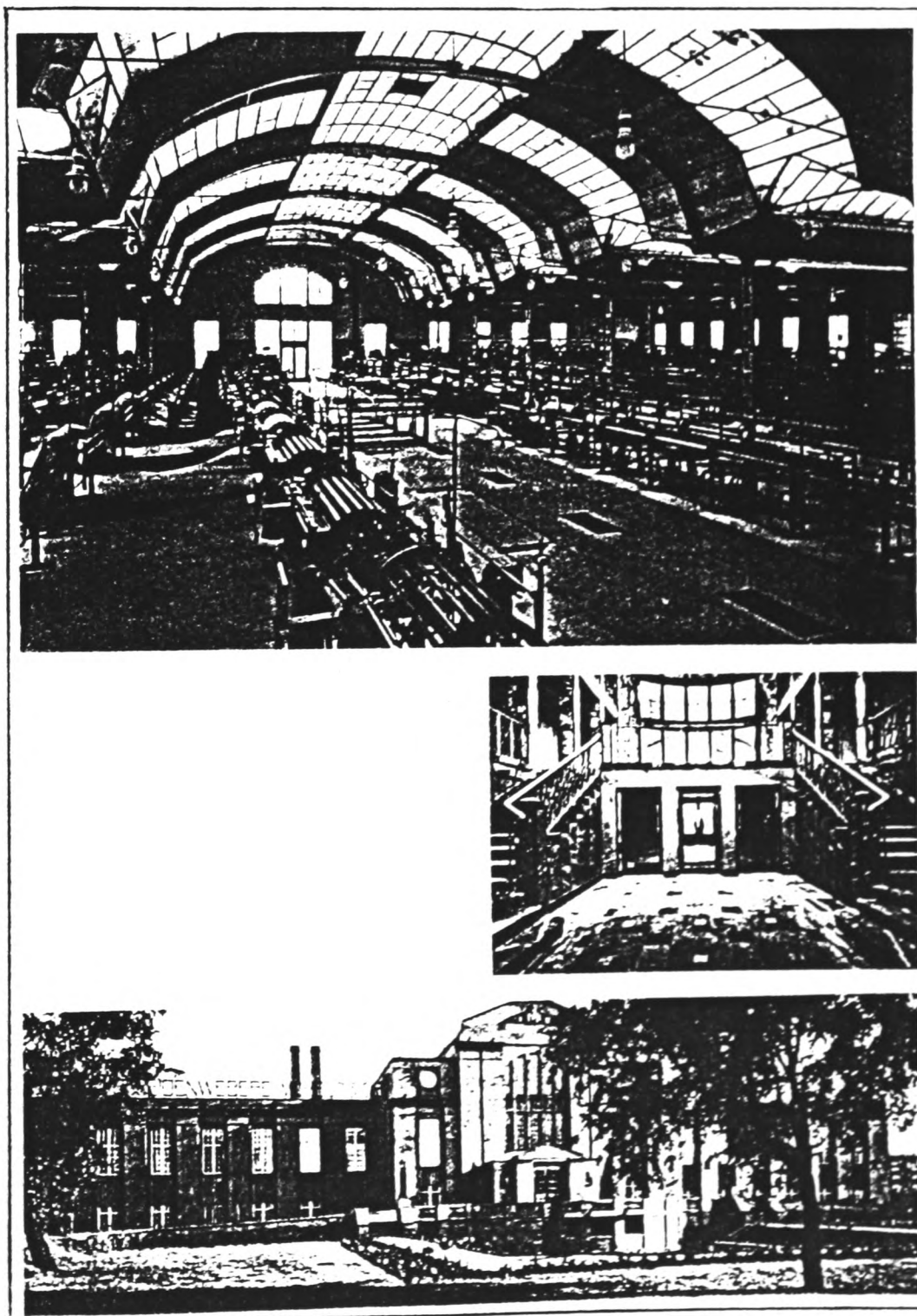
Mannesmann administrative building, main entrance,
Düsseldorf 1911-12. Relief by E.Encke (DWB). Present condition.

fig.76



Continental rubber company administrative building, Hanover 1912-20. Arch. P.Behrens. Present condition.

fig.77



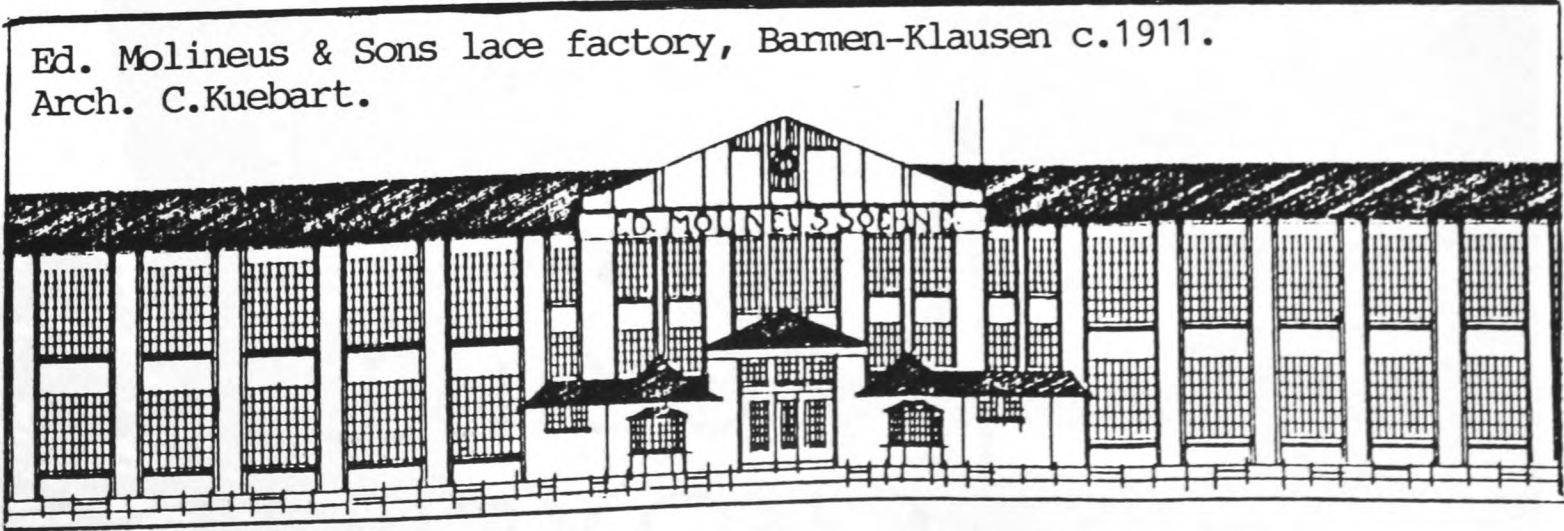
Michels silk mill, Potsdam-Nowawes 1913. Arch. H.Muthesius.

fig.78



Michels silk mill, Potsdam-Nowawes 1913. Arch. H.Muthesius.

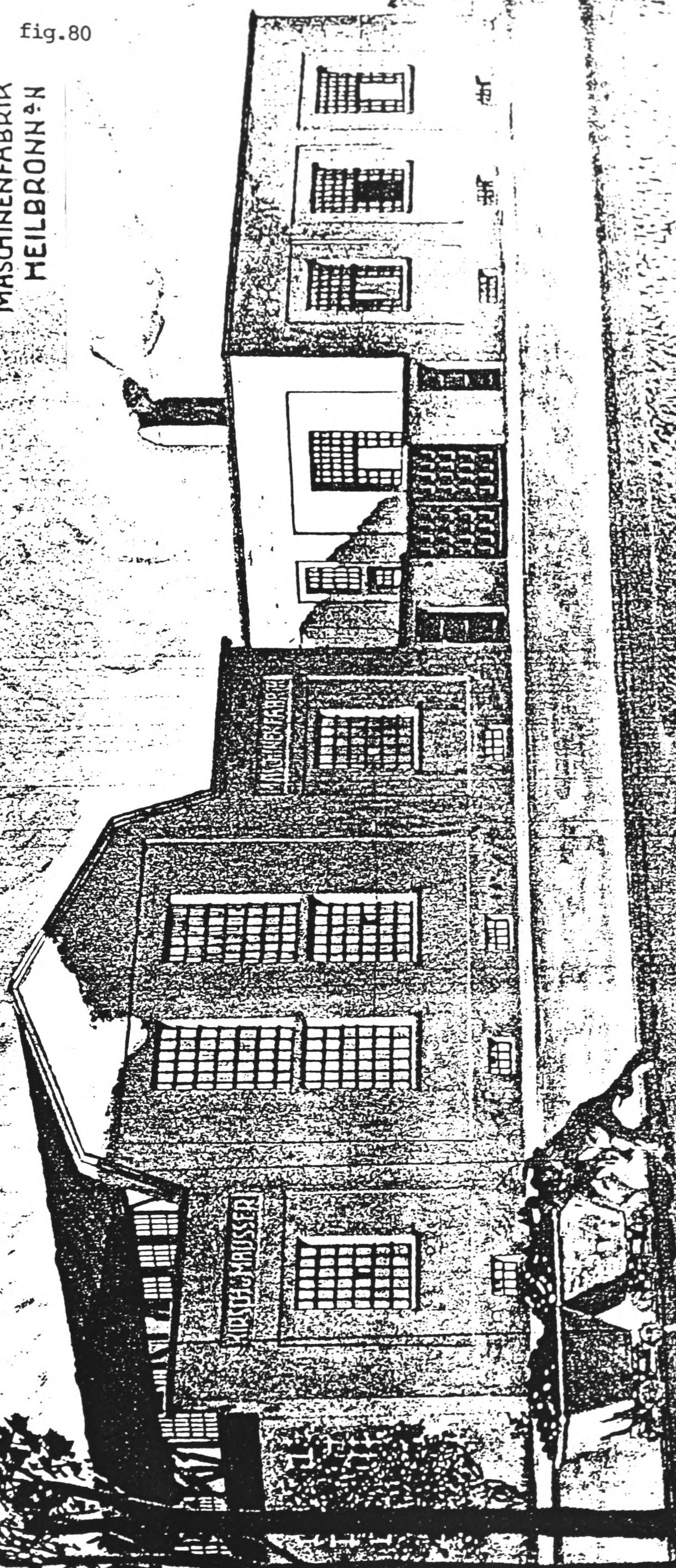
fig.79



Ed. Molineus & Sons lace factory, Barmen-Klausen c.1911.
Arch. C.Kuebart.

KIRSCH und MAUSSER
MASCHINENFABRIK
HEILBRONN

fig.80

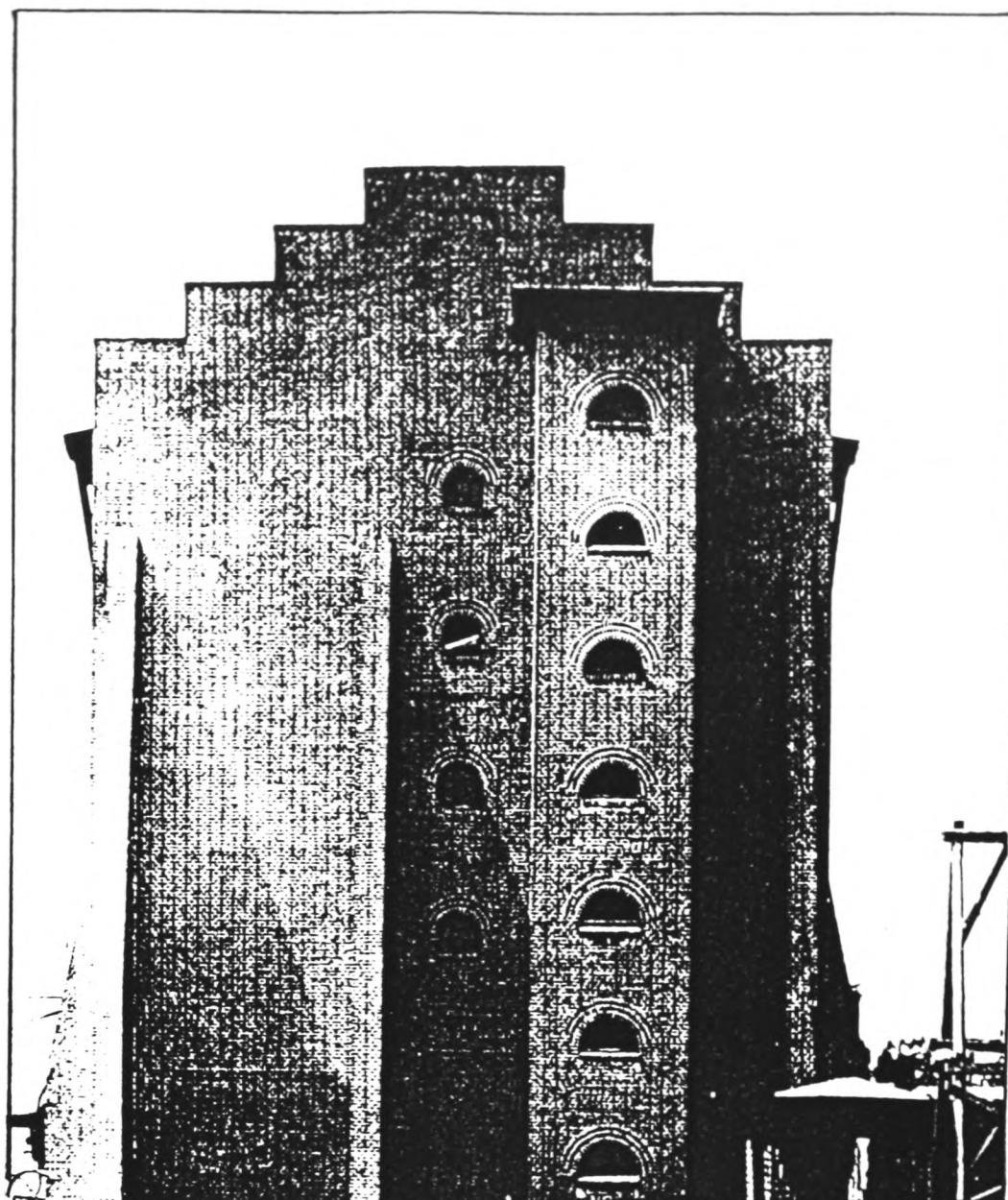


BEUTINGER und STEINER
ARCHITEKTEN B.D.A.
HEILBRONN - STUTTGART

92

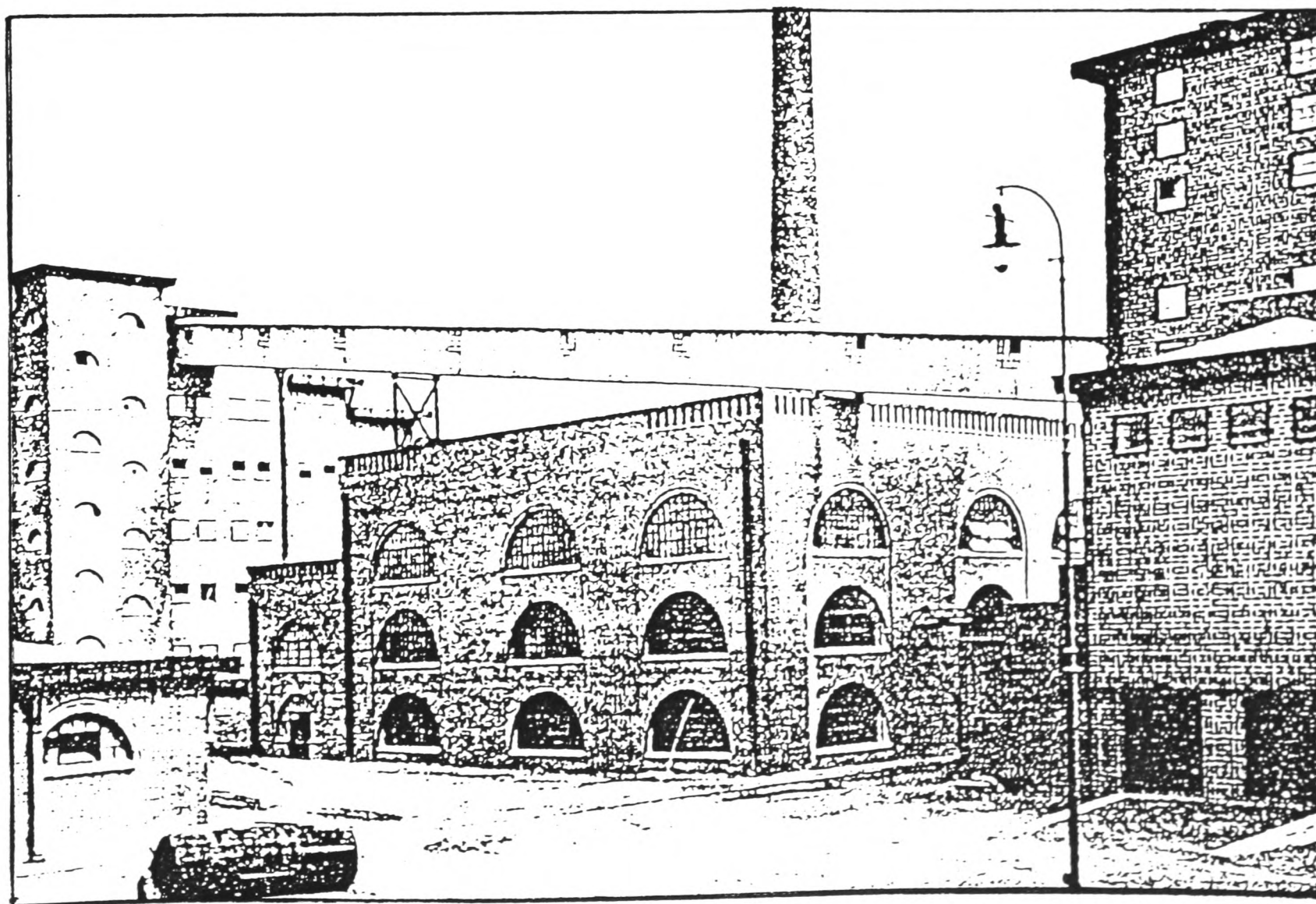
Kirsch & Mausser coffee machine factory, Heilbronn 1909.

fig.81



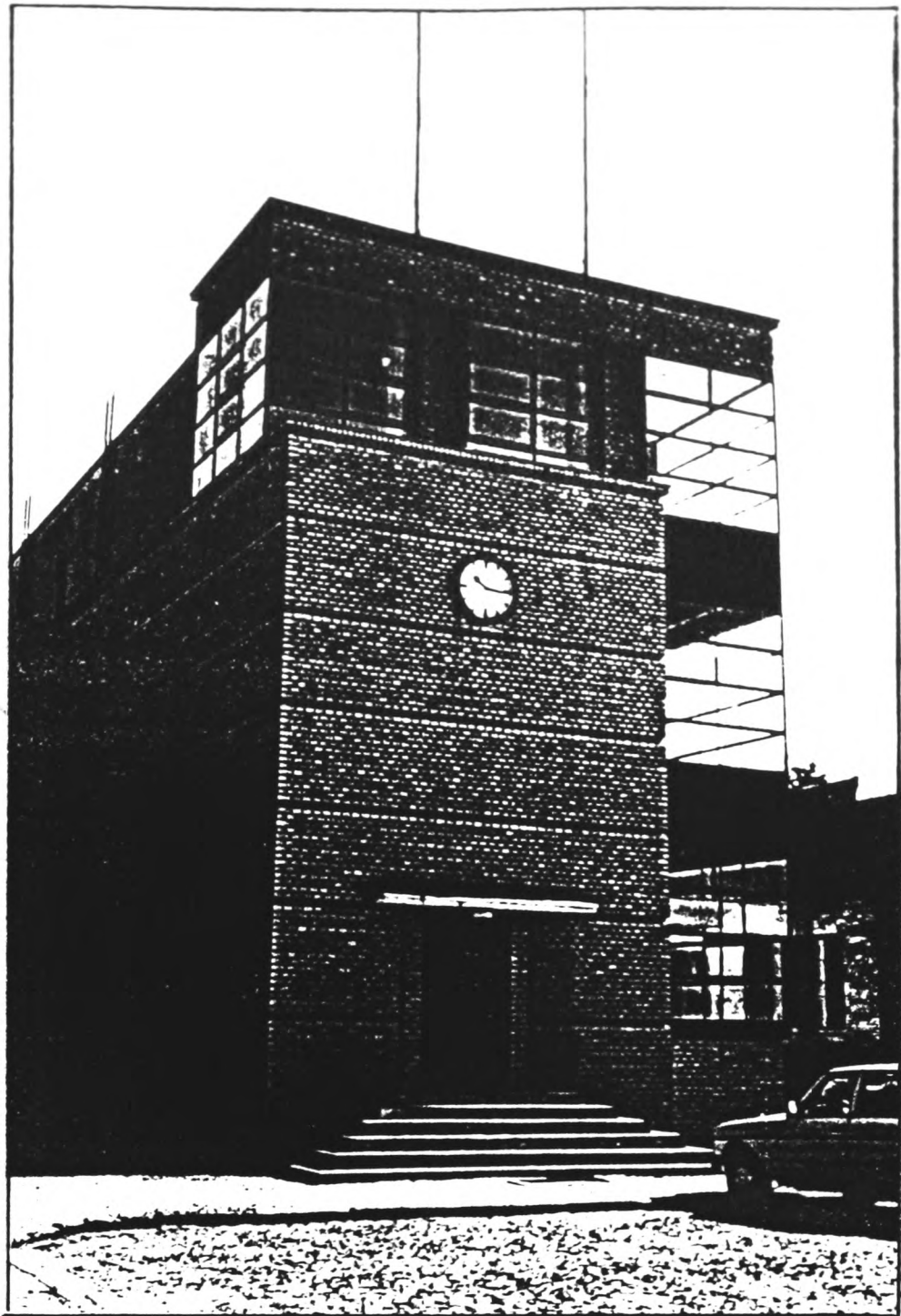
Chemical factory
(sulphuric acid plant),
Luban Nr. Posen, 1911-12.
Arch. H.Poelzig.

fig.82



Chemical factory (superphosphates plant), Luban Nr. Posen, 1911-12.
Arch. H.Poelzig.

fig.83



'Fagus' shoe-last factory, Alfeld a.d. Leine 1911-14.
Arch. W.Gropius. Present condition.

fig.84

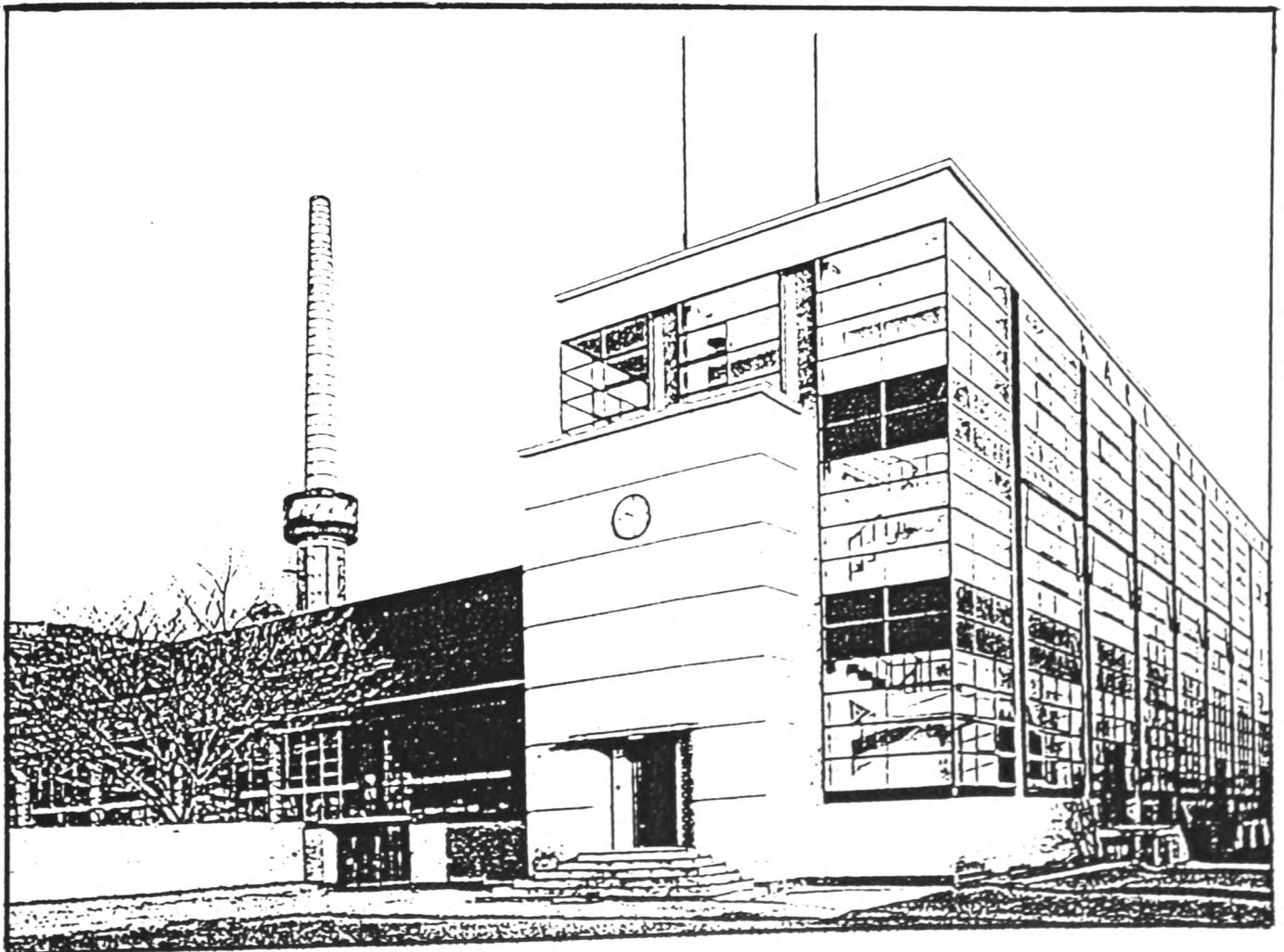
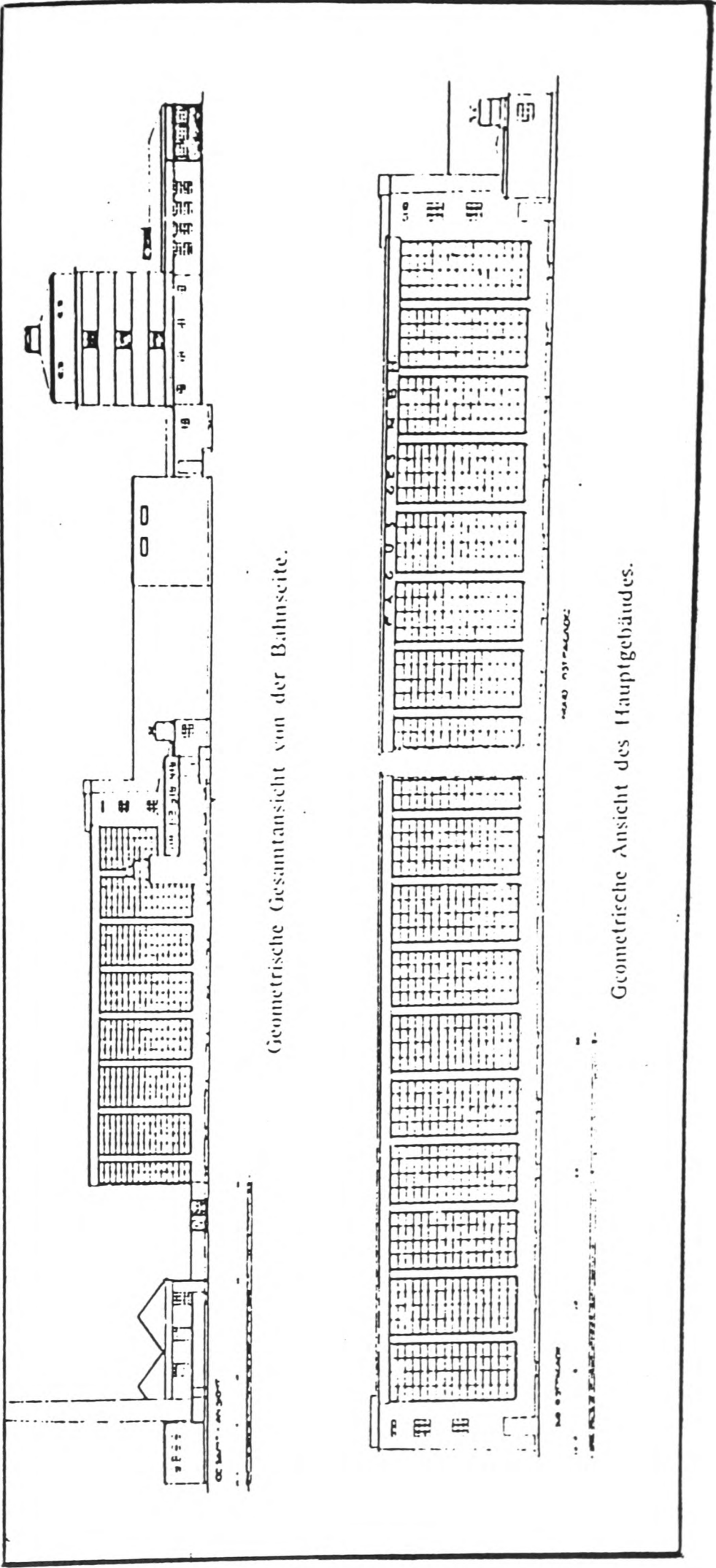
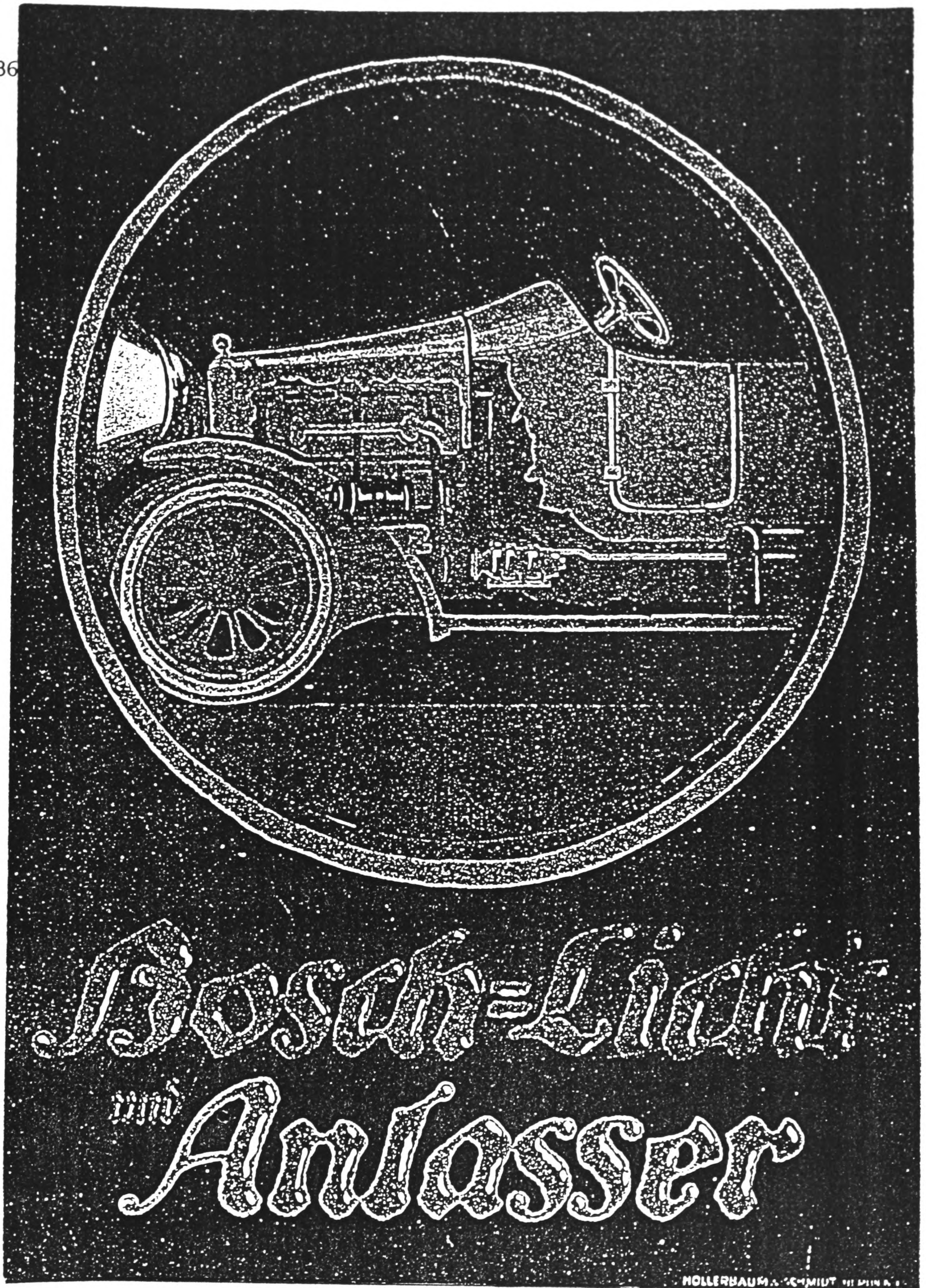


fig.85



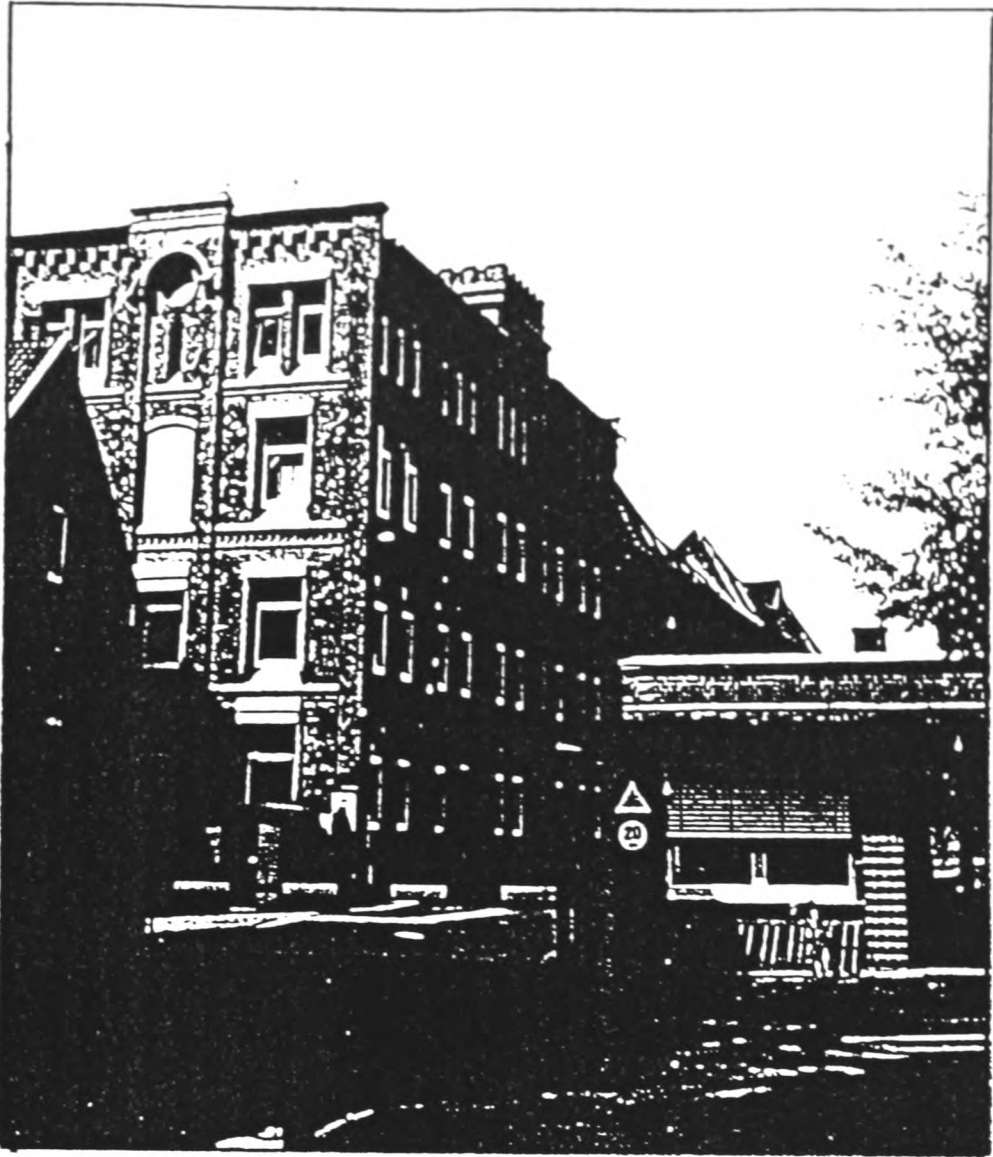
'Fagus' shoe-last factory, Alfeld a.d. Leine 1911-14.

fig.86



Poster for Bosch, Lucian Bernhard (DWB) 1913.

fig.87



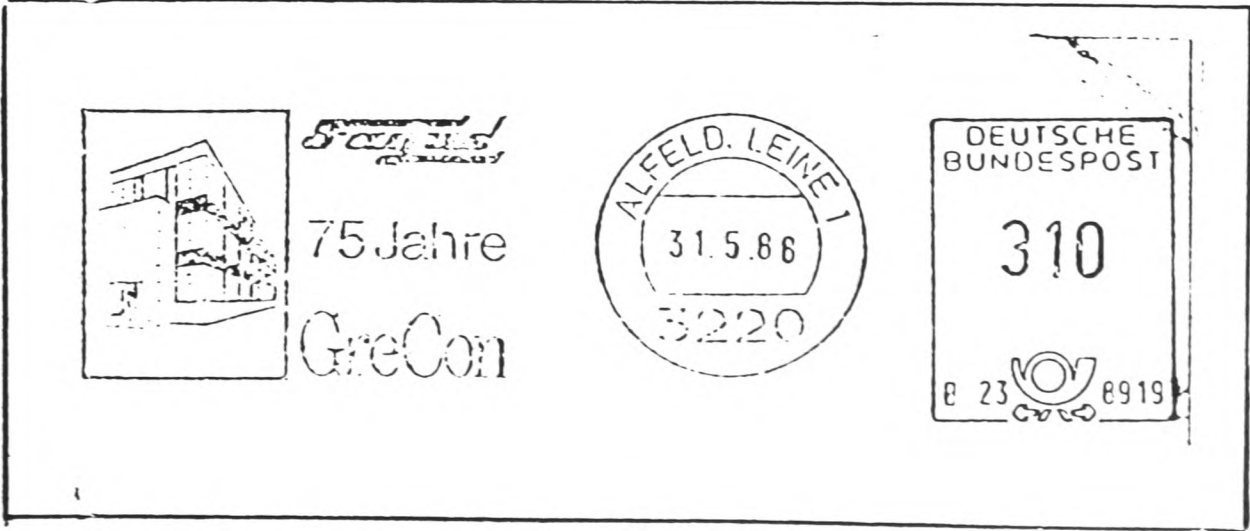
C.Behrens shoe-last factory, Alfeld 1897. Arch. E.Werner.

fig.88



'Fagus' logo, M.Hertwig, c.1911.

fig.89



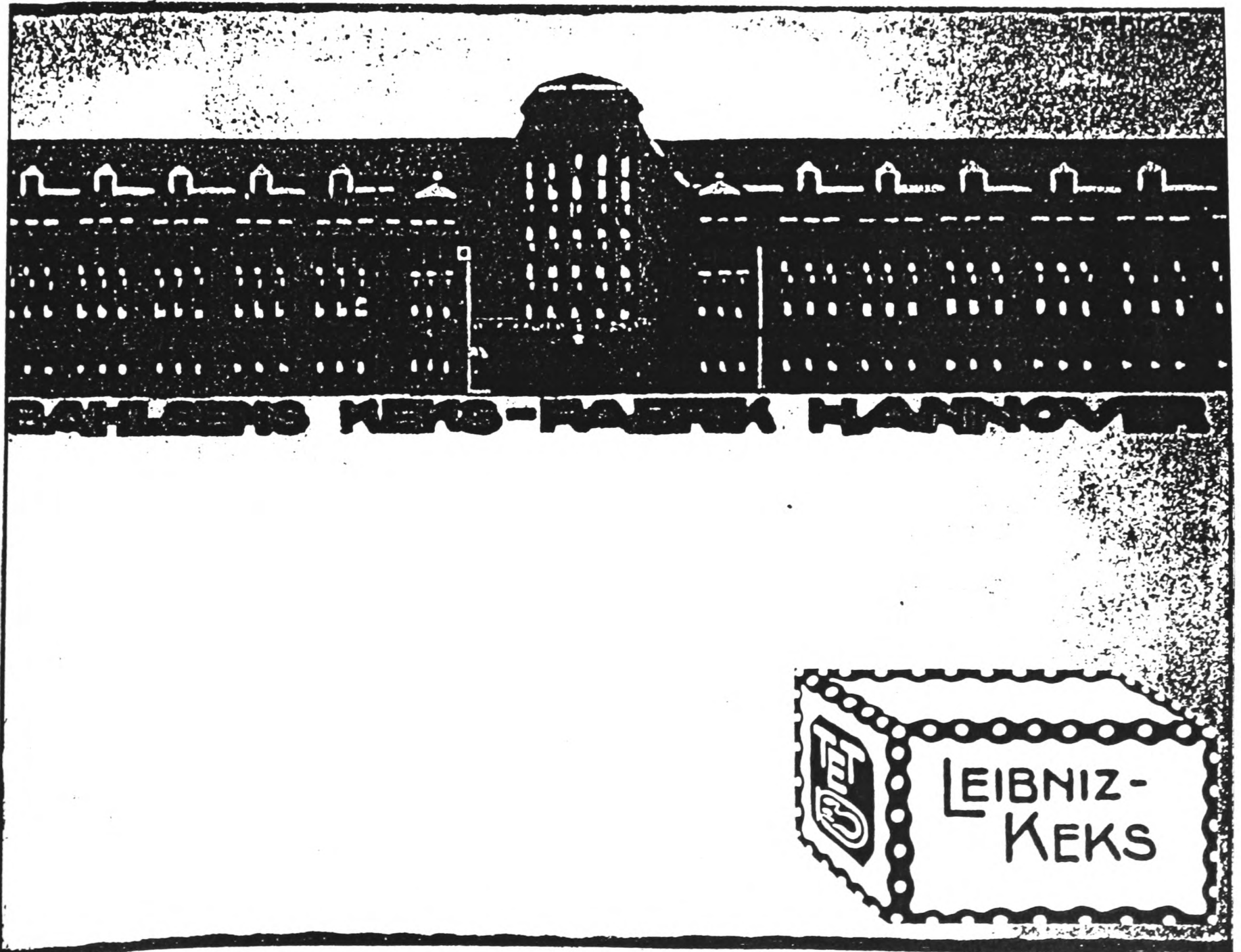
'Fagus-Grecon' postmark, 1988.

fig.90

Bahlsen advertisement, Otto Obermeier 1911, featuring Siebrecht's new administrative building in Hanover.



fig.91



Bahlsen advertisement, Robert Fricke 1912, featuring Siebrecht's new factory building in Hanover.

fig.92



Bahlsen 'artist stamps', Carl Bernhart 1912.

fig.93

'Kaffee HAG' advertisement, featuring Wagner's factory building, 1914.



fig.94



'Henkell' champagne advertisement, featuring Bonatz' building, Lucian Bernhard c.1914.

fig.95

Seidenweberei MICHEL'S & C^{IE}

Berlin SW. 19

Leipziger Str.
43-44



Seidene italienische Möbelbrokate

Shantung-Seiden

in uni und bedruckt,

Japan- und Shanghai-Seiden

für Gardinen, Vorhänge und Dekorationen
in ca. 500 Farben,

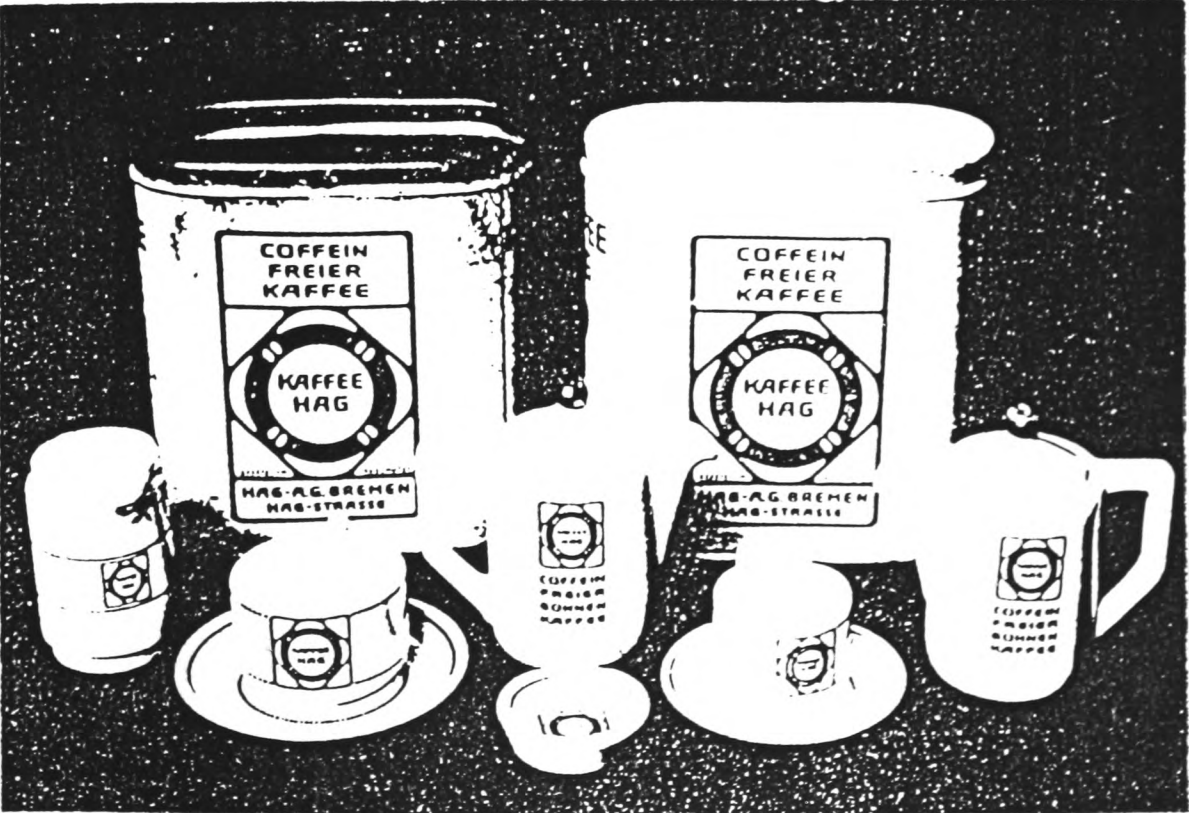
Handgeftickte Decken und Schals,

Flügel- und Tisch-Decken

sowie sämtliche zur Innendekoration
benötigten Materialien der Seiden-Industrie

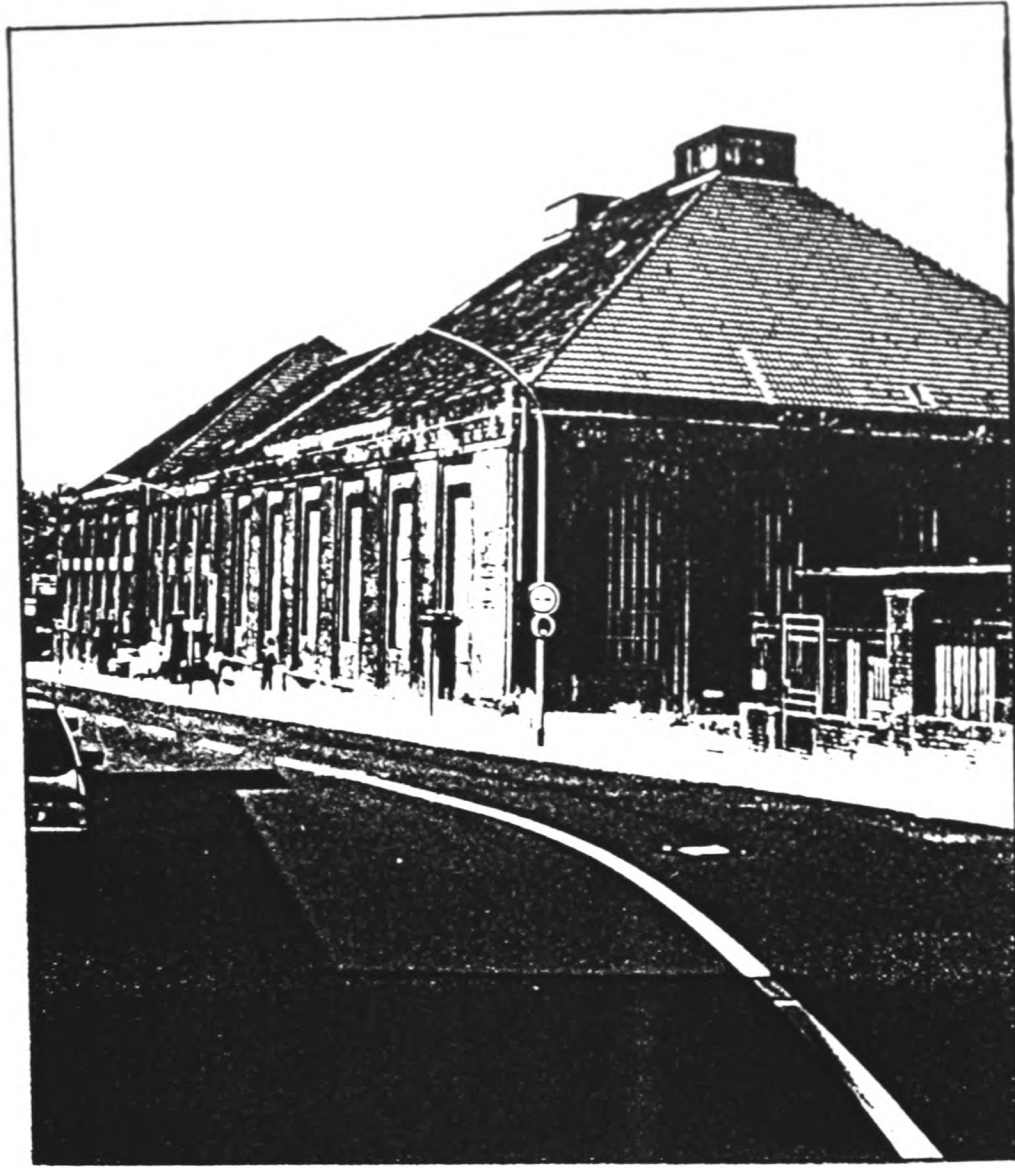
'Michels' silk advertisement, featuring Muthesius' building
c.1914.

fig.96



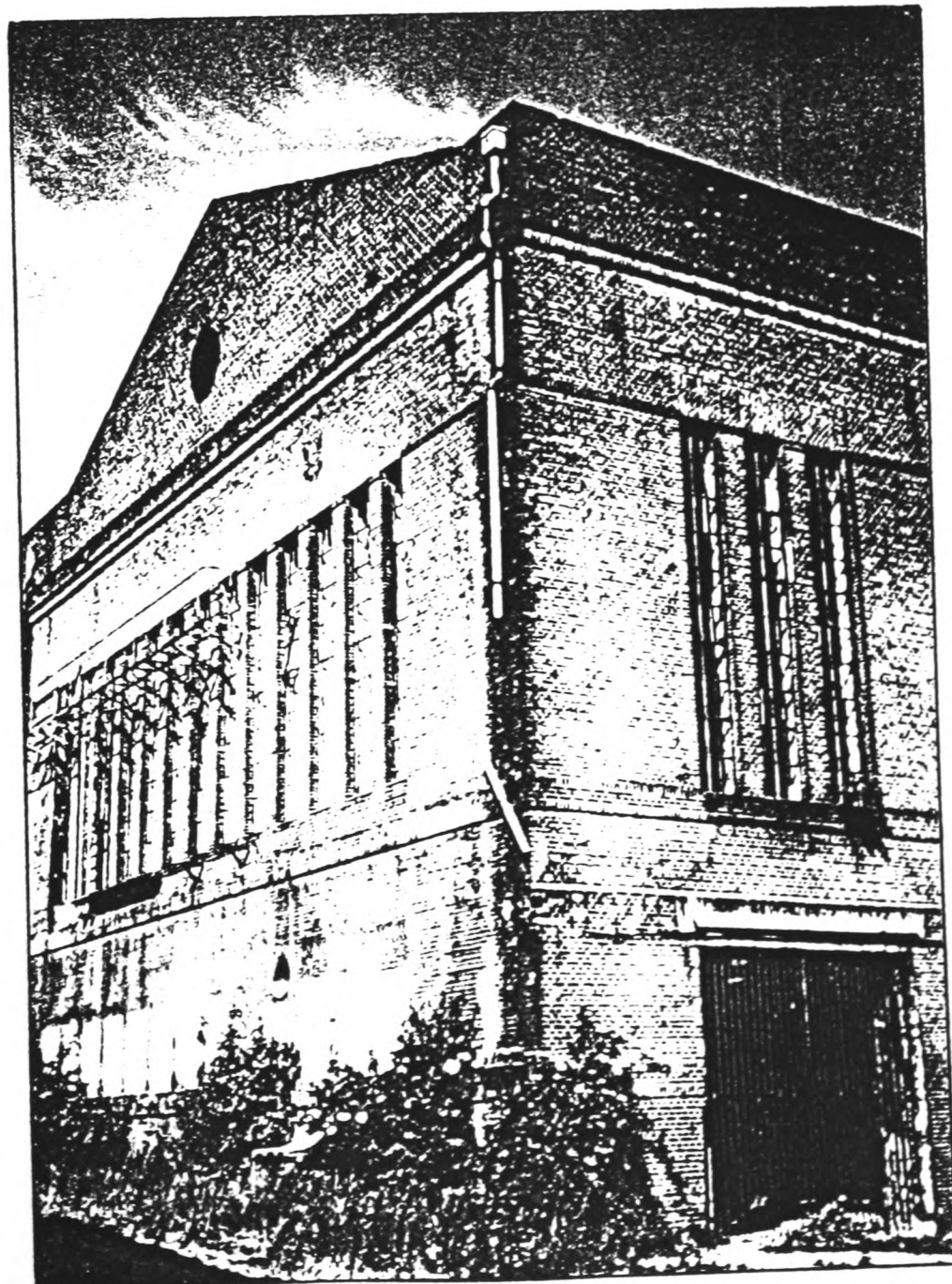
'Kaffee HAG' promotional coffee cups, jugs and tins, pre-1914.

fig.97



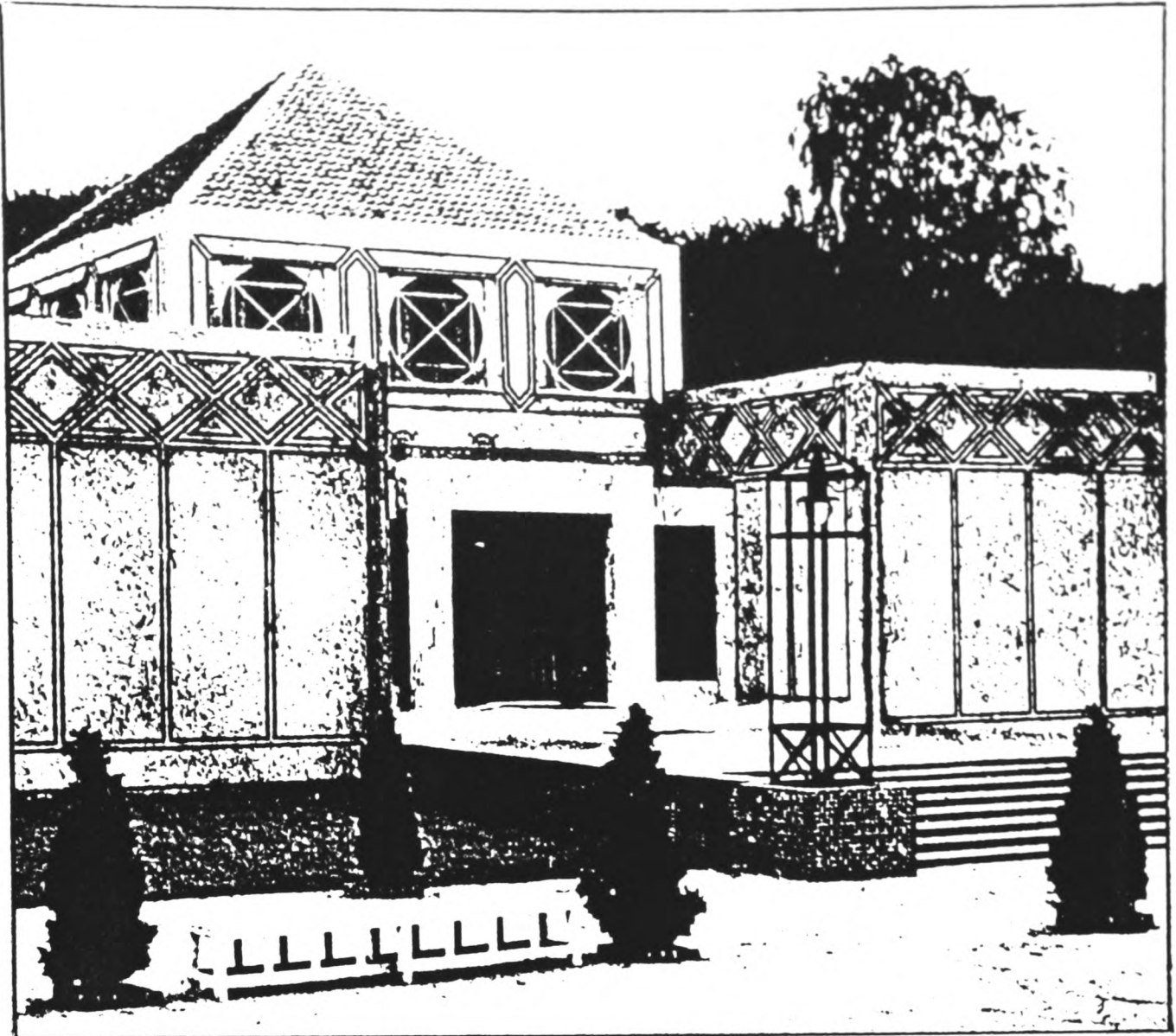
'Schachtanlage Emil' pit-head buildings, Essen-Frillendorf 1912-13.
Arch. A.Fischer. Present condition.

fig.98



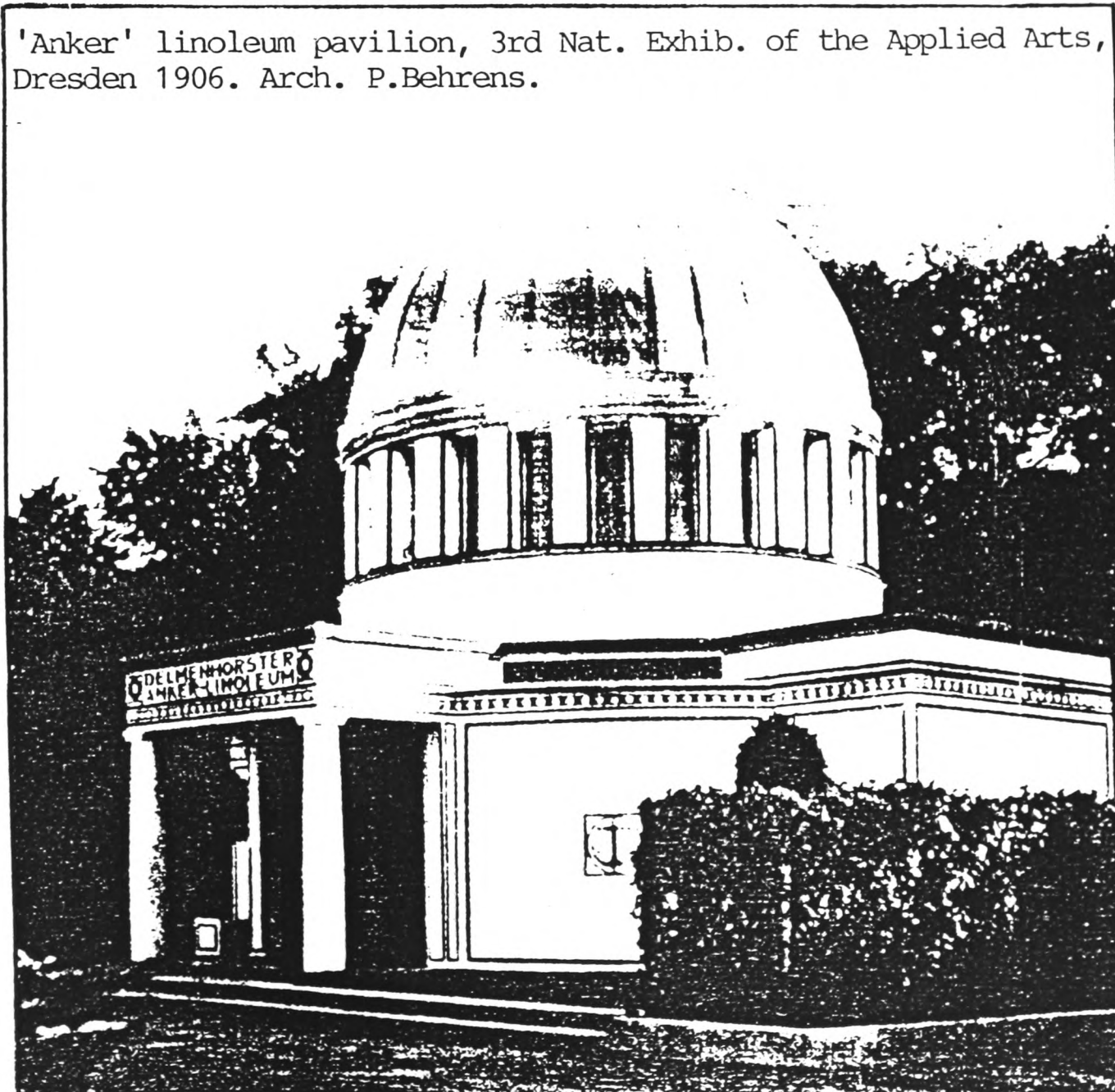
'Zeche Sachsen' machine hall, Hamm-Heeßen 1914.
Arch. A.Fischer. Present condition.

fig.99



Exhibition pavilions, North West German Art Exhibition,
Oldenburg 1905. Arch. P.Behrens.

fig.100



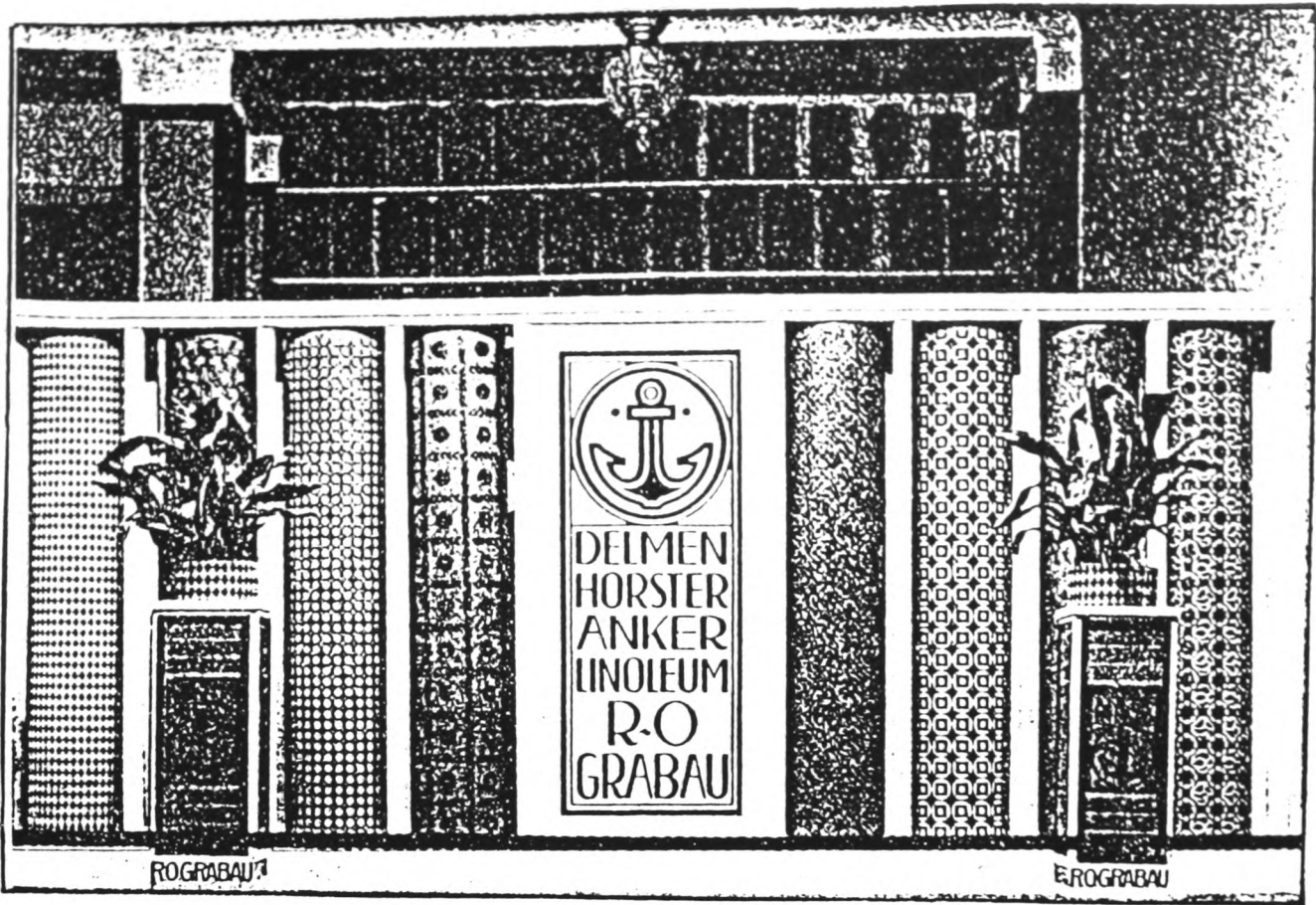
'Anker' linoleum pavilion, 3rd Nat. Exhib. of the Applied Arts,
Dresden 1906. Arch. P.Behrens.

fig.101

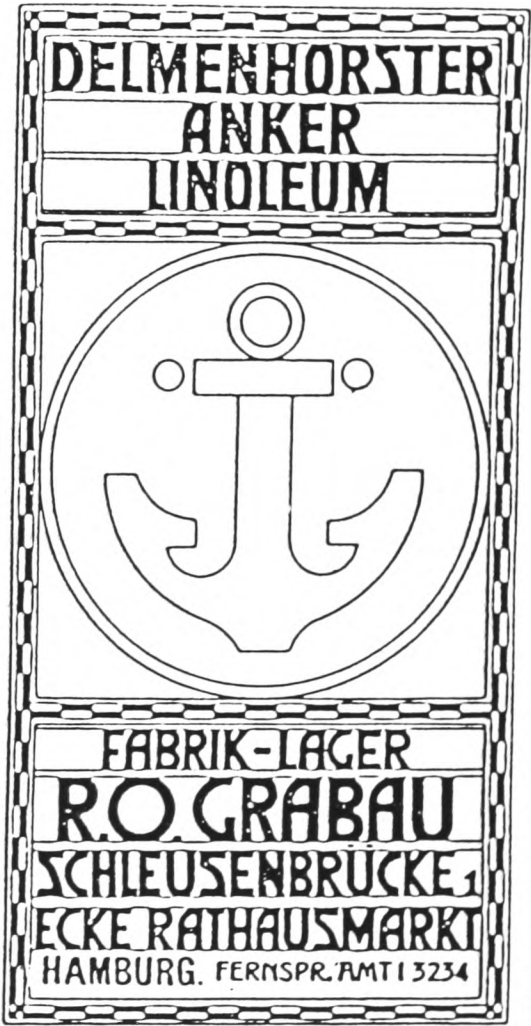


'Anker' linoleum logo, P.Behrens c.1905.

fig.102



'Anker' linoleum sales outlet, Hamburg.
Window display by H.Haller (DWB).



'Anker' linoleum sales outlet, Hamburg.

fig.103

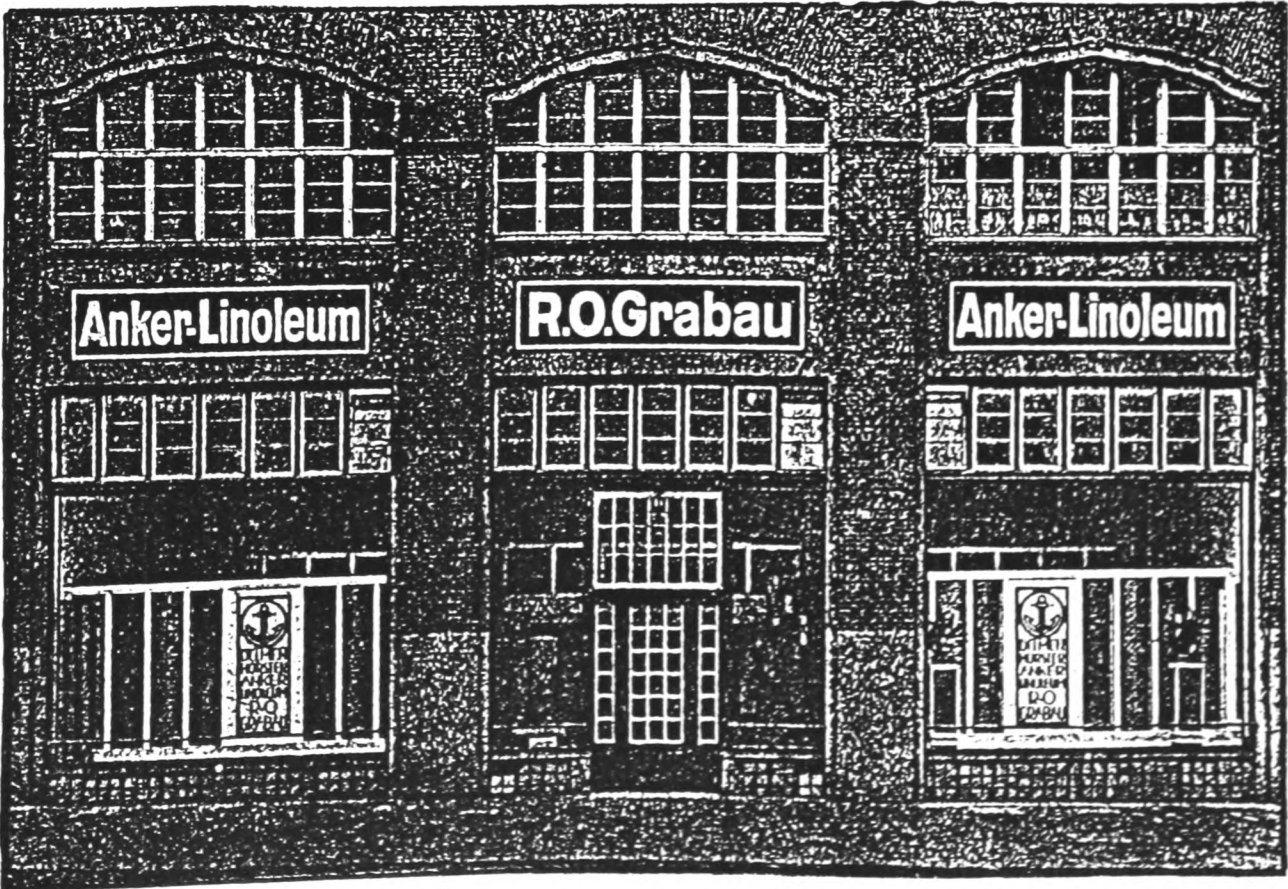


fig.104

TAPETEN, LINOLEUM UND LUKRUSTA	
Linoleum	
540 lin	Prof. Peter Behrens, Neubabelsberg
547	
548	Architekt Albert Gessner, Berlin
549	
550	
551	Prof. Albin Müller, Darmstadt
552	
553	
554	Prof. Josef Hoffmann, Wien
555	
556	
557	
558	Prof. Bruno Paul, Berlin
559	
560	
561	
562	
Lukrulta	
563	
564	Prof. Peter Behrens, Neubabelsberg
565	
566	
567	Prof. Albin Müller, Darmstadt
568	
569	
570	Manneken
571	

(Samtliche Muster des Linoleums und der Lukrulta
ausgeführt von der Delmenhorster Linoleum - Fabrik
„Anker-Marken“)

DELMENHORSTER

ANKER-LINOLEUM



ERSTKLASSIGE QUALITÄT

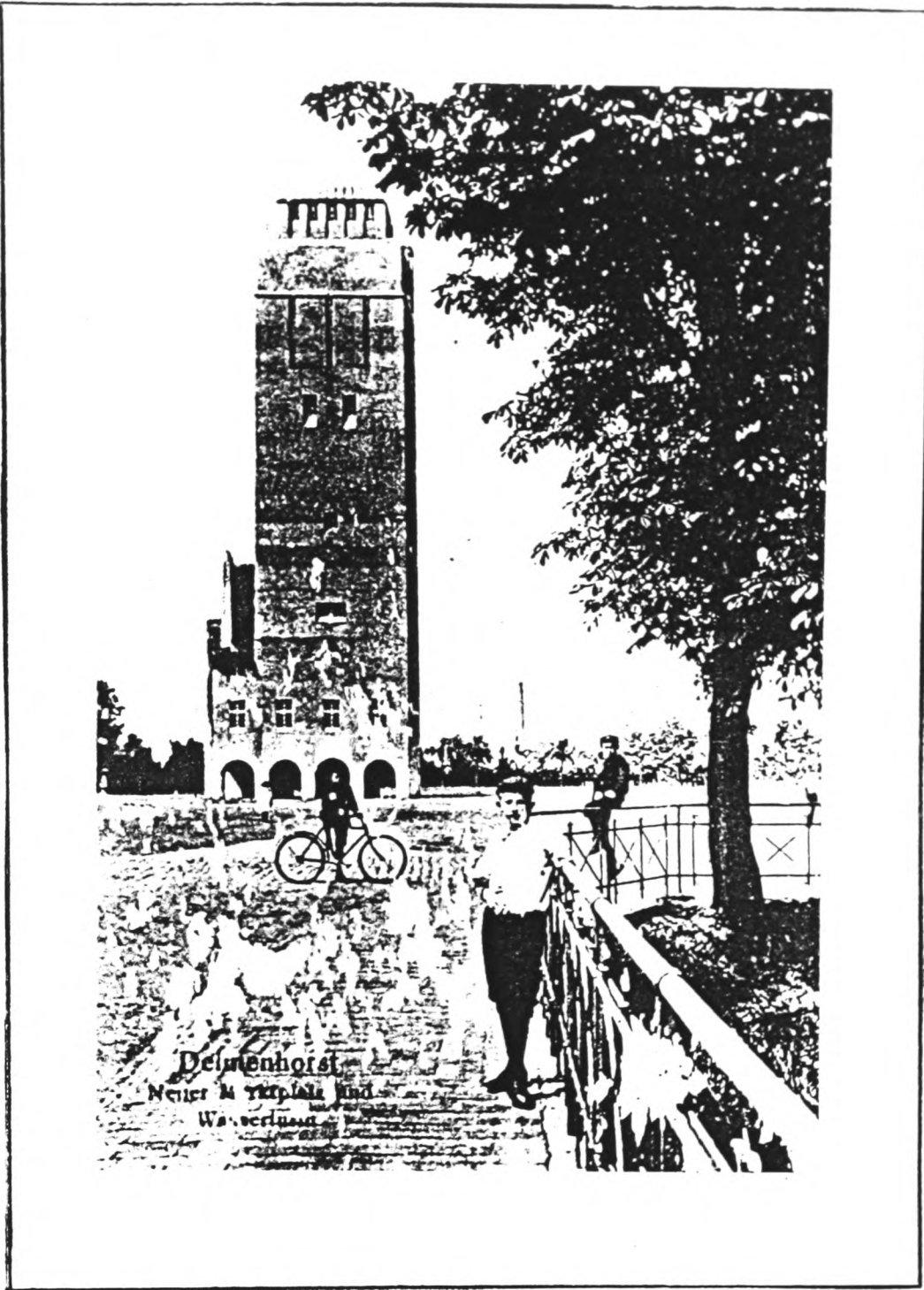
MUSTER NACH ENTWÜRFEN NAMHAFTER KÜNSTLER

ALLEIN-VERTR. FÜR DIE V.S.A.GERMANIA IMPORTING Co.

41 UNION SQUARE, NEW-YORK

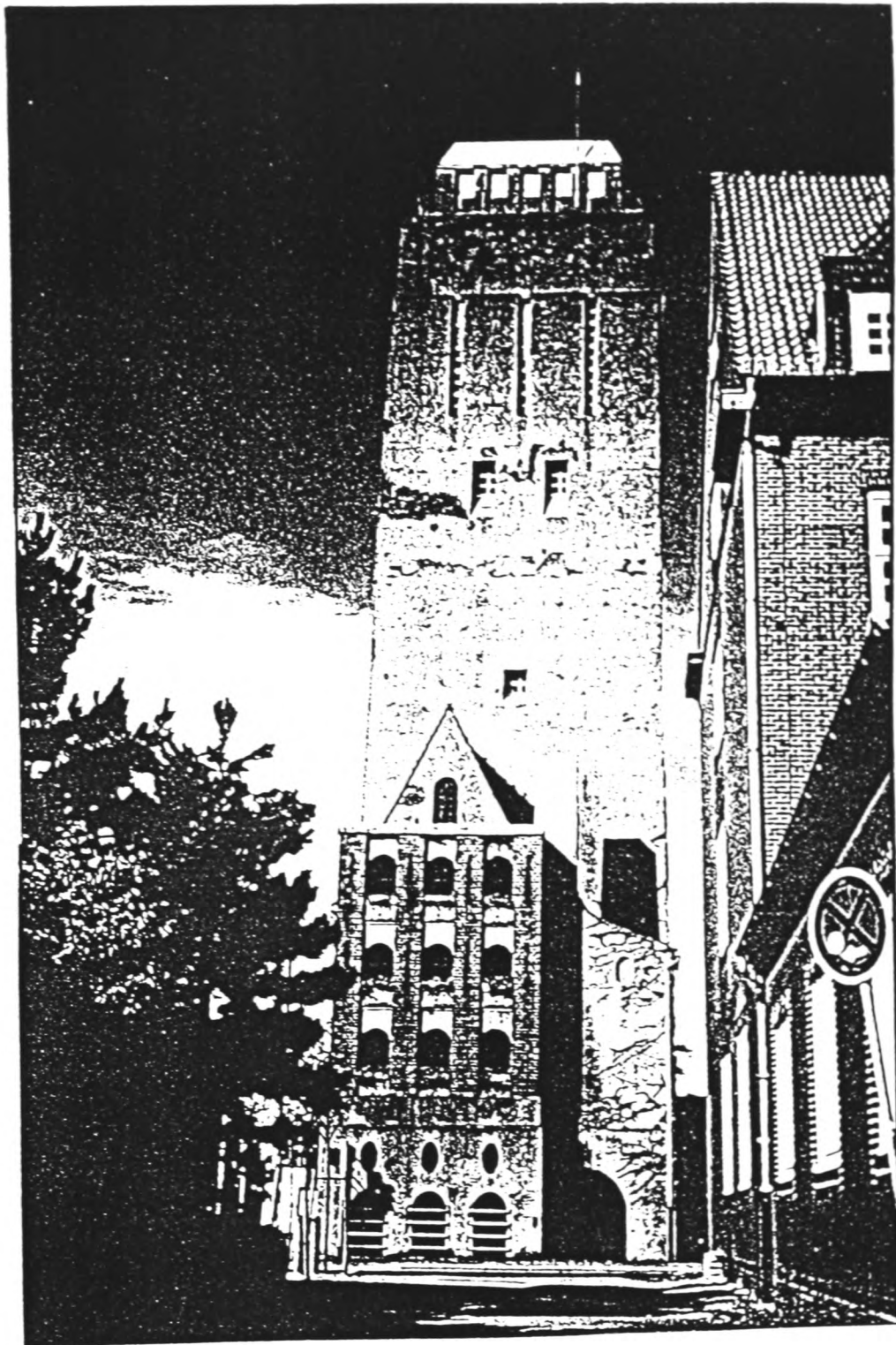
Catalogue for the travelling exhibition of the German Museum for Art in Trade and Commerce. Newark - Chicago - Indianapolis - Pittsburgh - Cincinnati - St.Louis. Hagen 1912-13.

fig.105



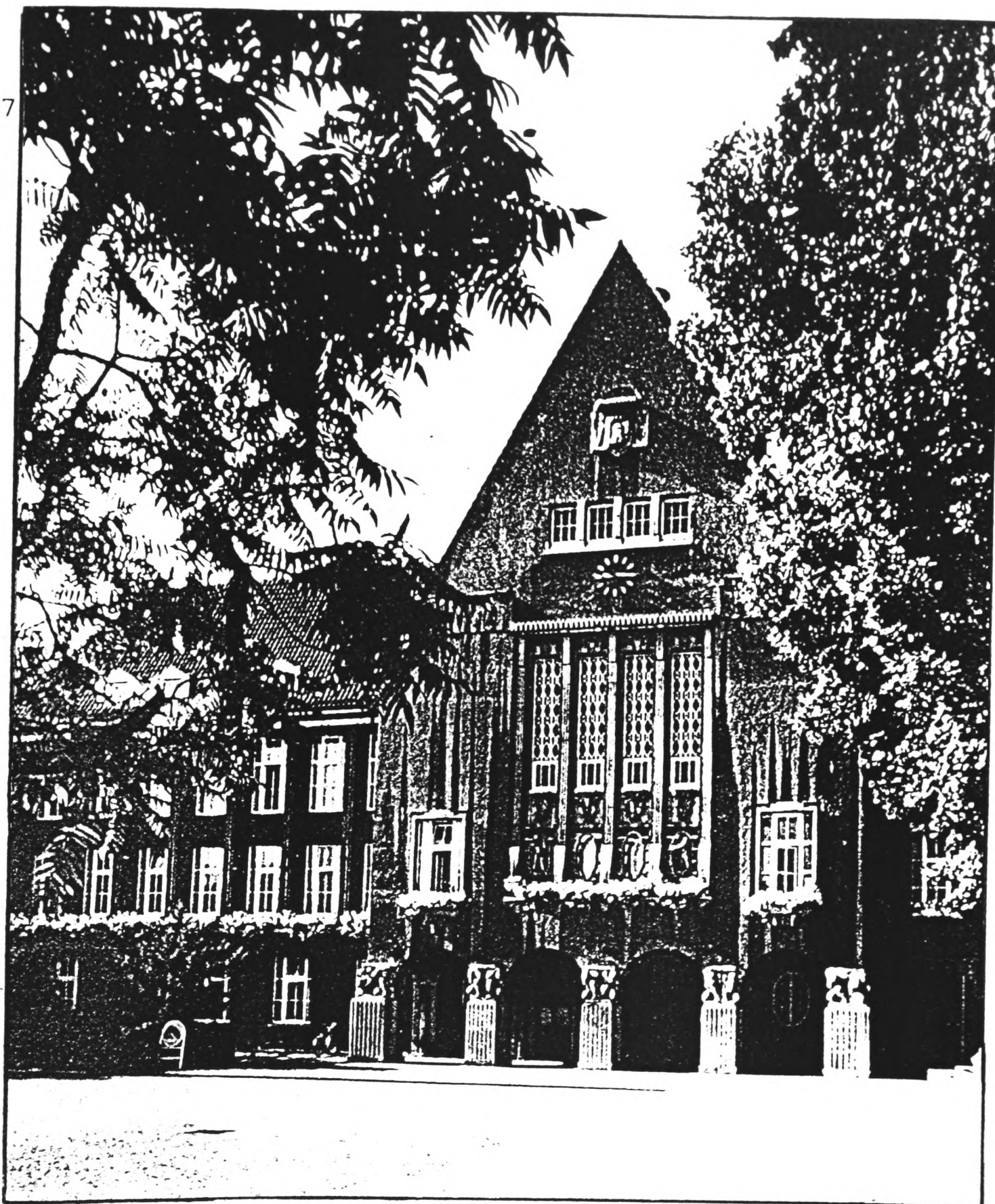
Watertower (shortly after completion), Delmenhorst 1909.
Arch. H.Stoffregen.

fig.106



Watertower (south-west elevation, with fire brigade tower),
Delmenhorst 1909. Arch. H.Stoffregen. Present condition.

fig.107



Town hall (north-east elevation), Delmenhorst, designed 1908-9, built 1912-14. Arch. H.Stoffregen. Present condition.

fig.108



Town hall, watertower and market hall, Delmenhorst 1908-20.

Town hall (south-west elevation), Delmenhorst, designed 1908-9, built 1912-14. Arch. H.Stoffregen. Present condition.

fig.109

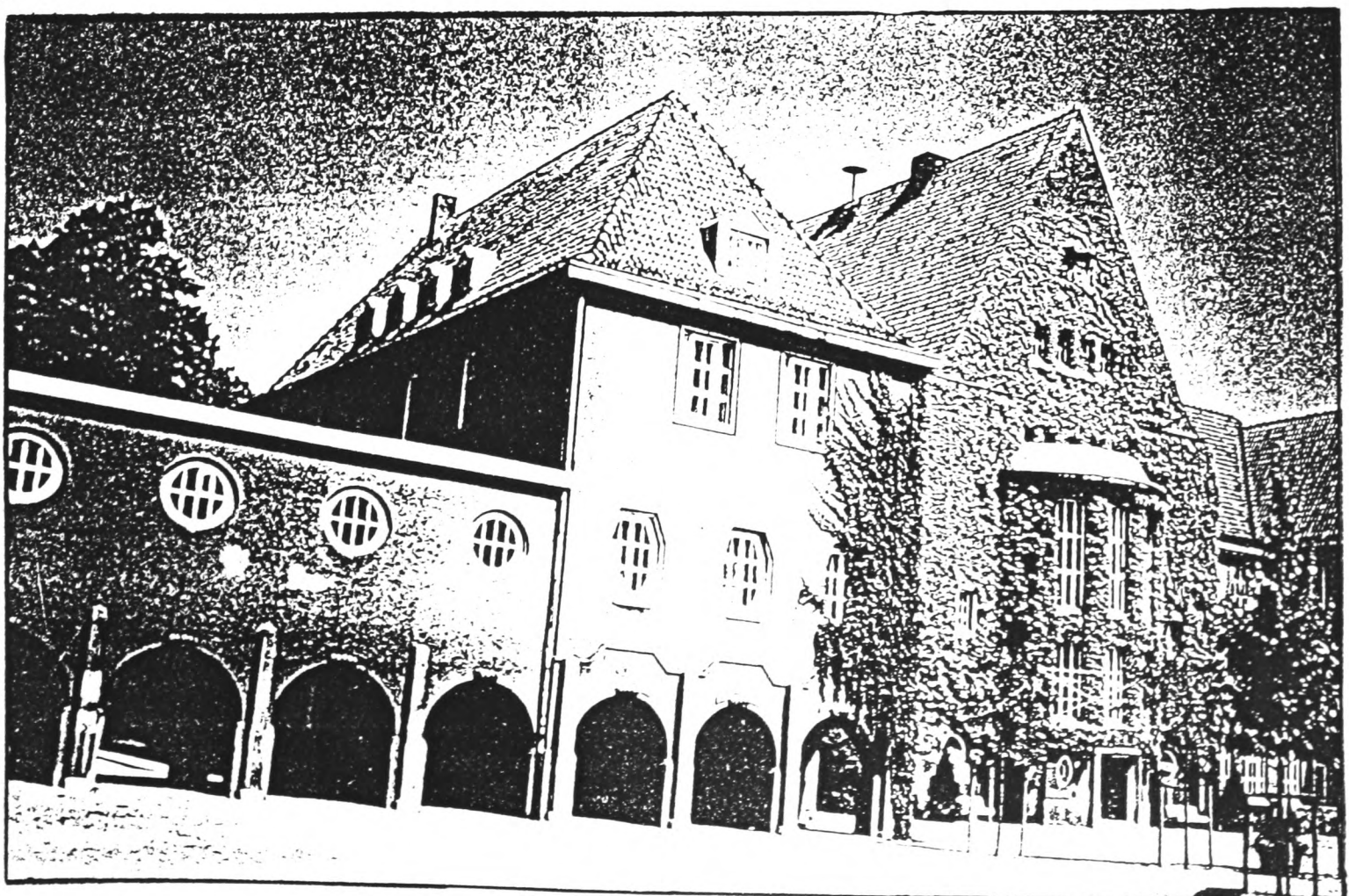
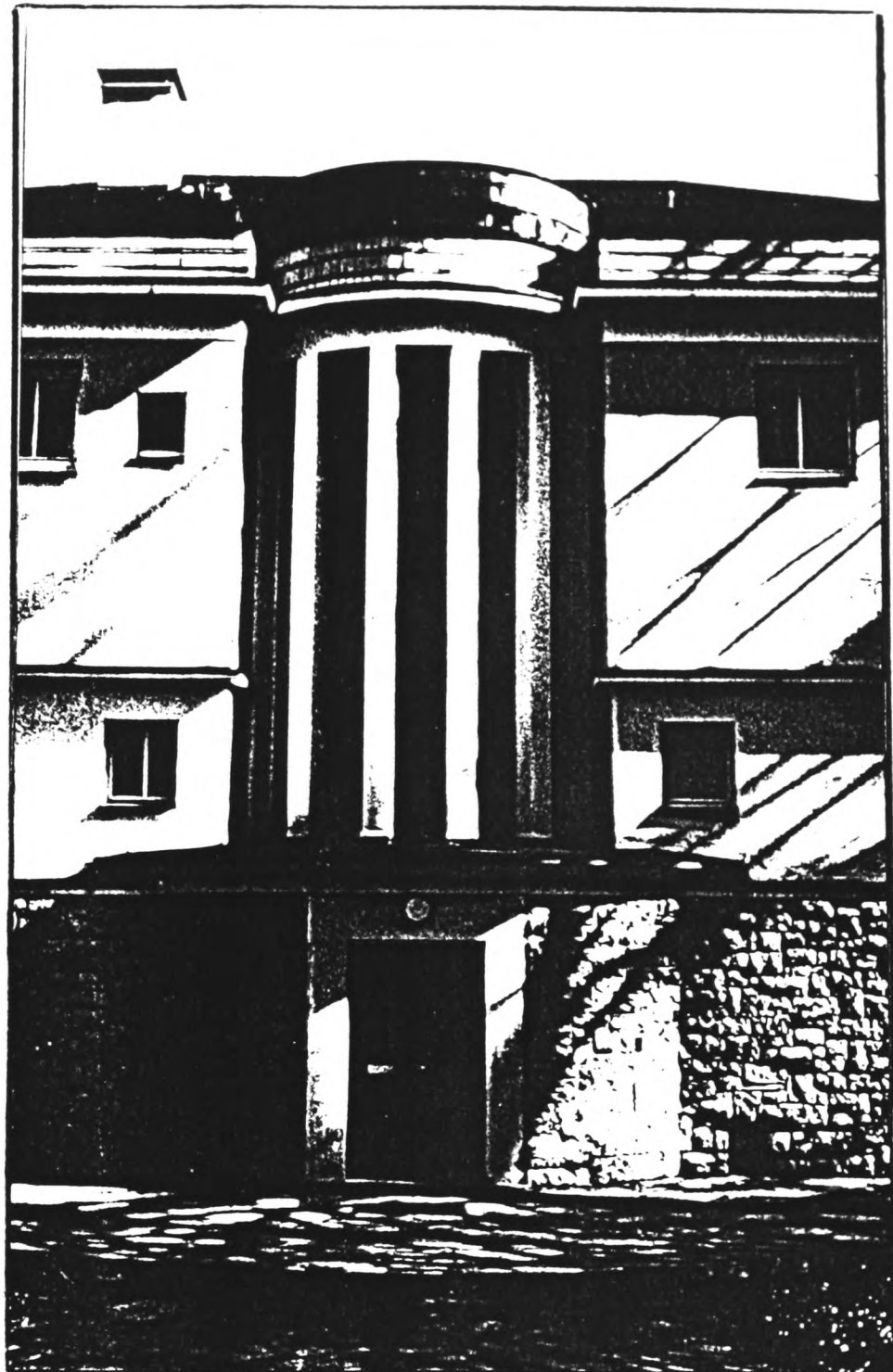
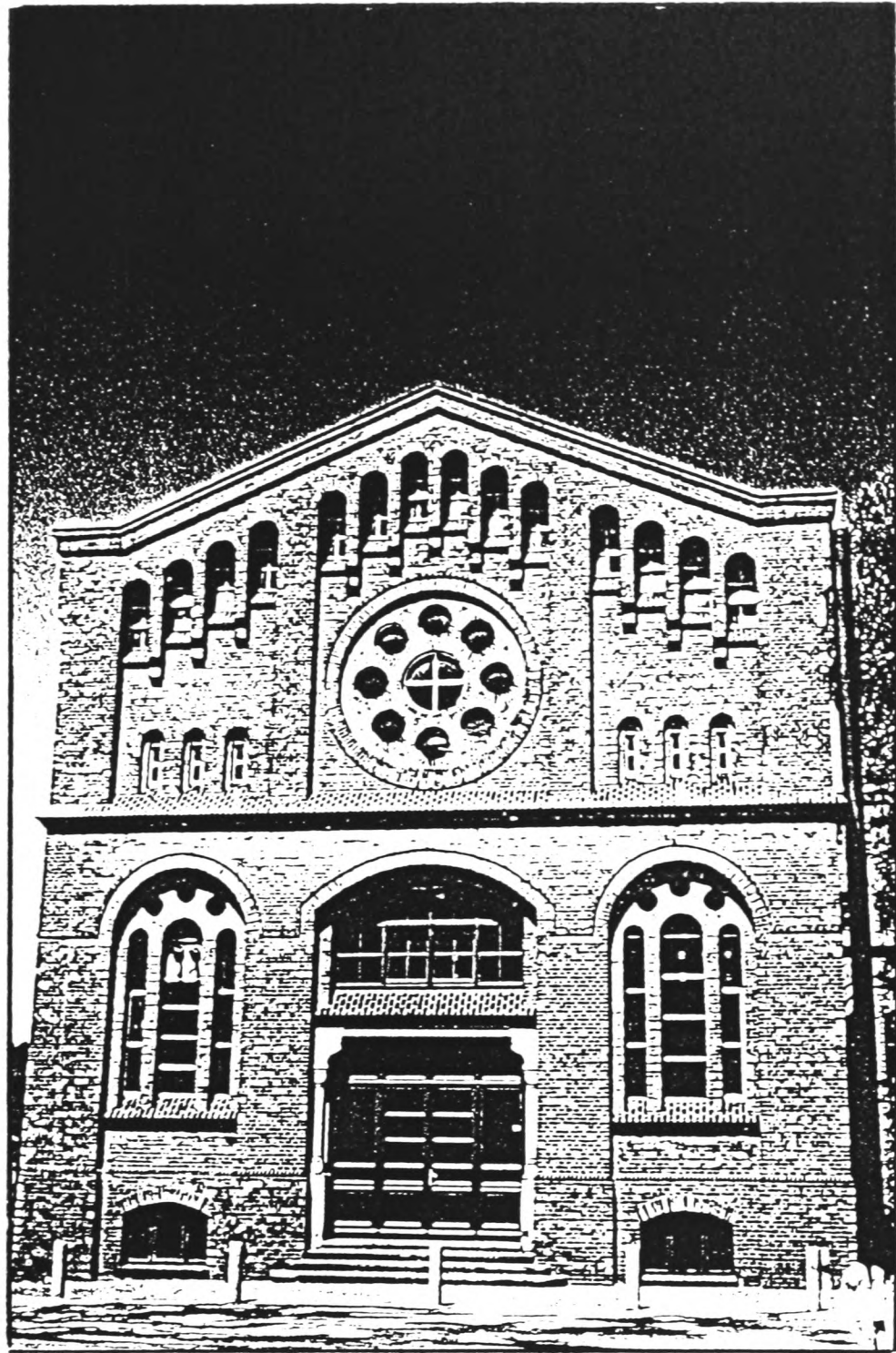


fig.110



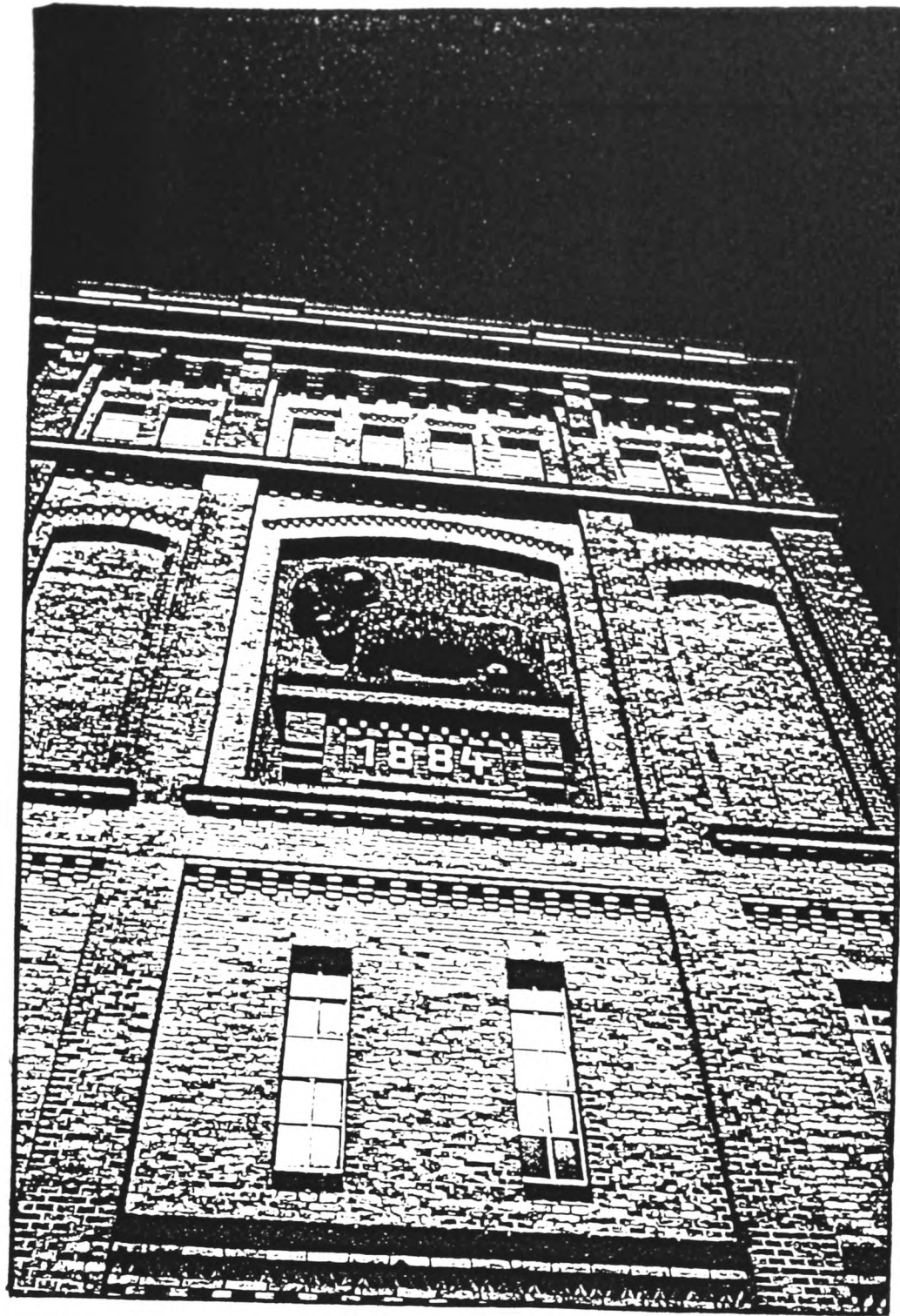
Cuno House, Hagen-Hohenhagen 1909-10. Arch. P.Behrens.
Present condition.

fig.111



NW&K machine hall, Delmenhorst 1902. Arch. H.Deetjen.
Present condition.

fig.112



NW&K water tower, Delmenhorst 1910. Arch. H.Deetjen.

NW&K warehouse, Delmenhorst 1896/1910. Arch. W.Weyhe/H.Deetjen.

fig.113

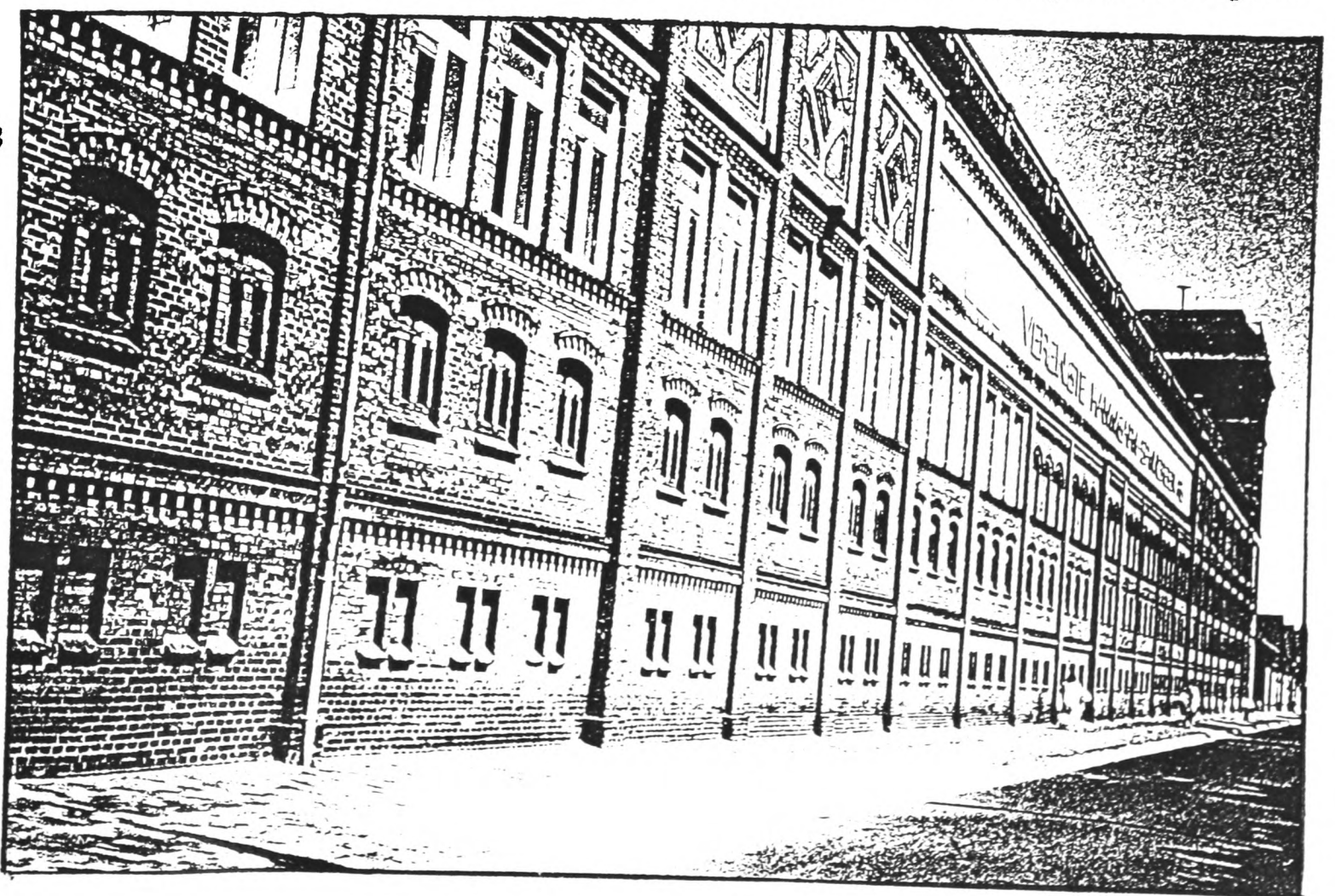
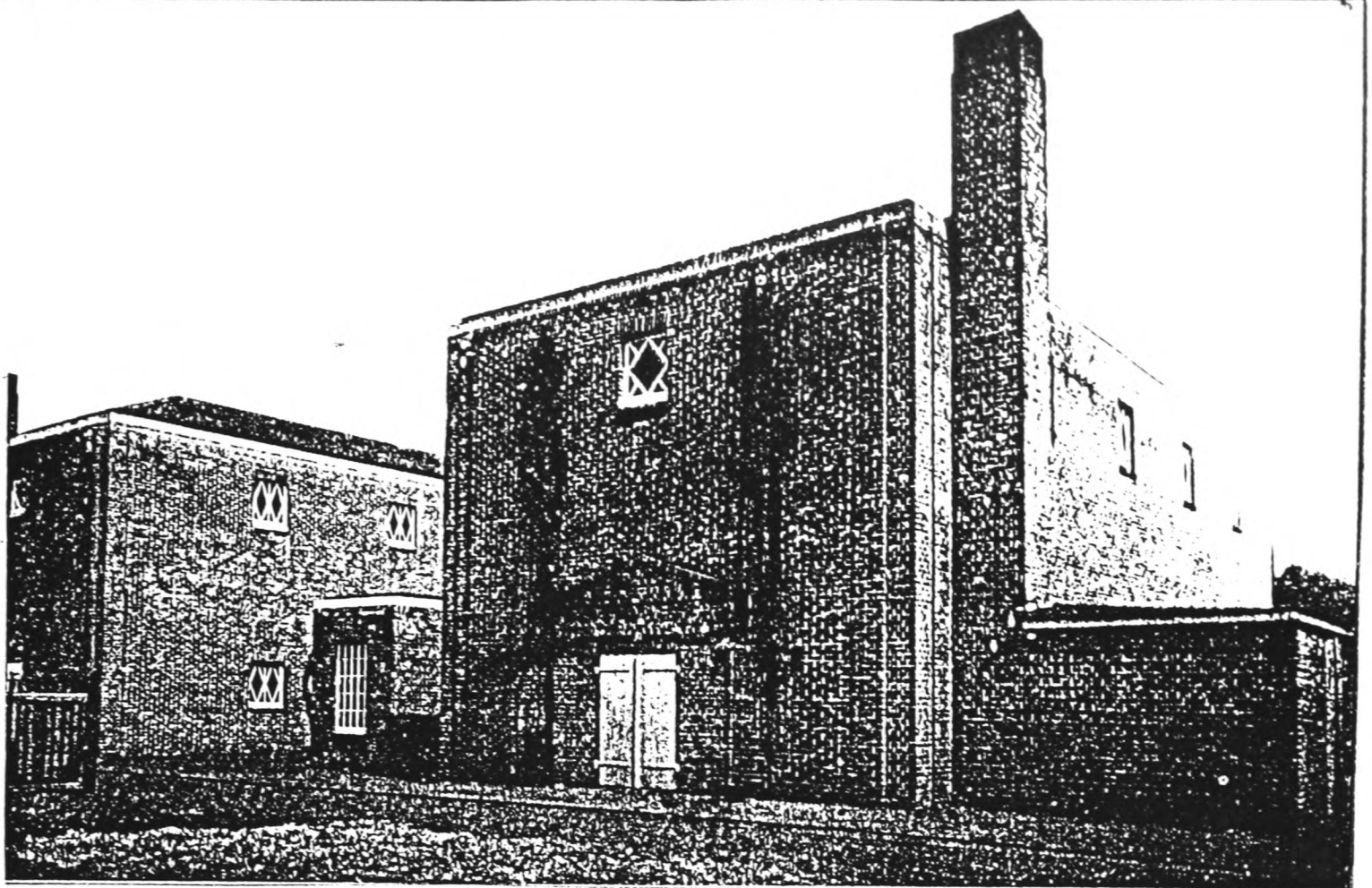


fig.114

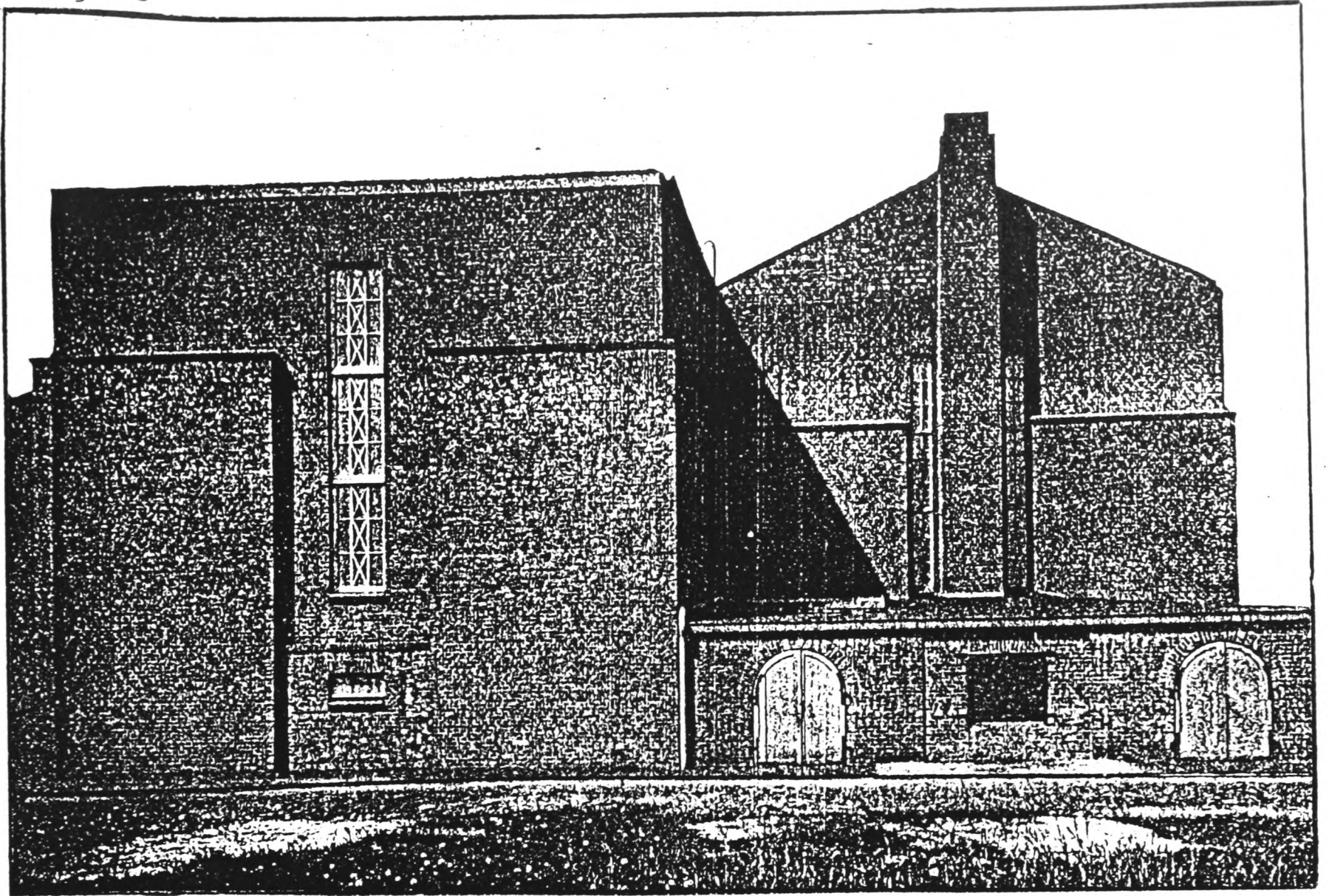


Oxydationshaus
 für Linoleum
 Delmenhorst

1910

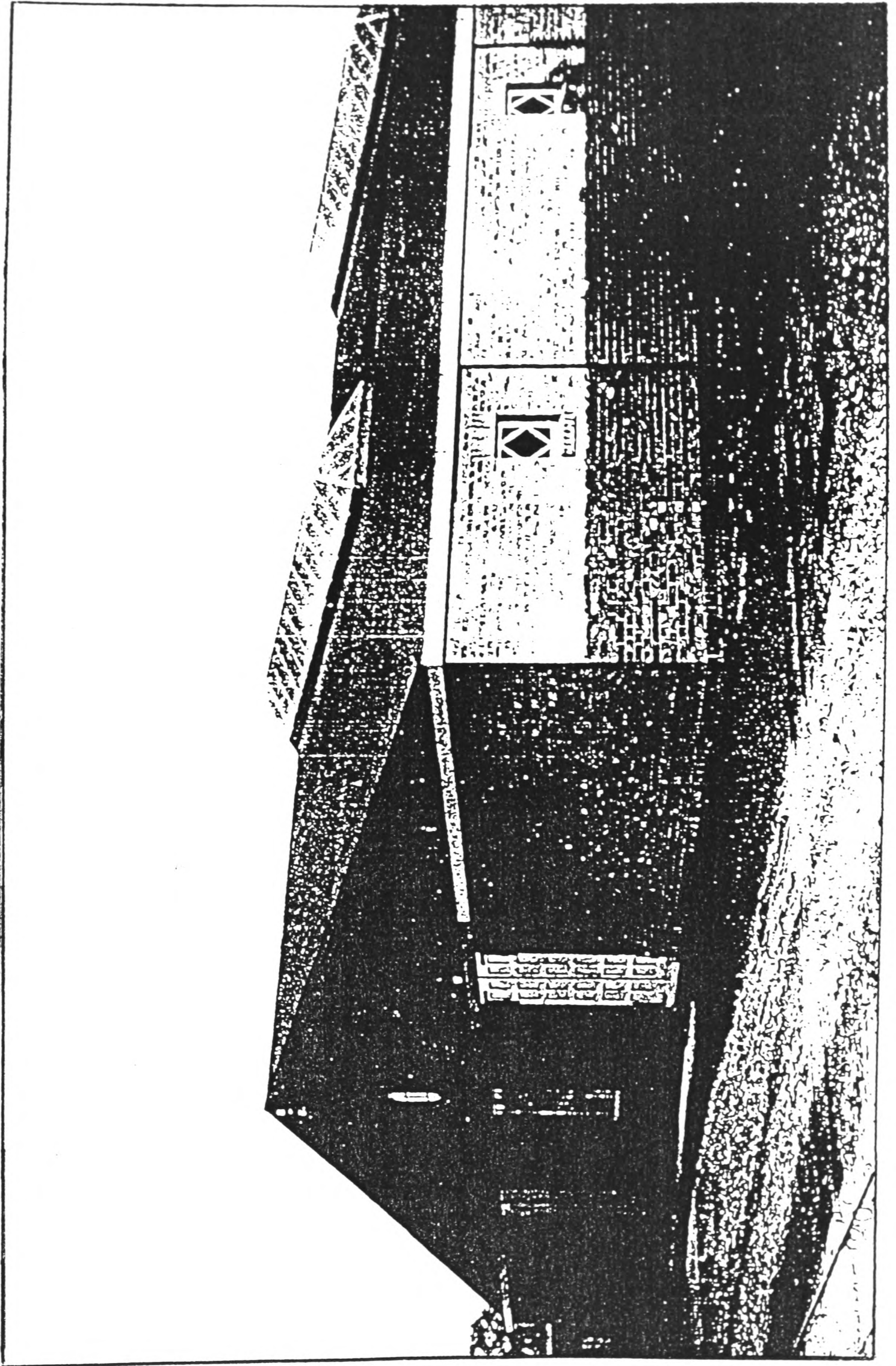
'Anker' linoleum oxydization houses, Delmenhorst 1910.
Arch. H.Stoffregen.

fig.115



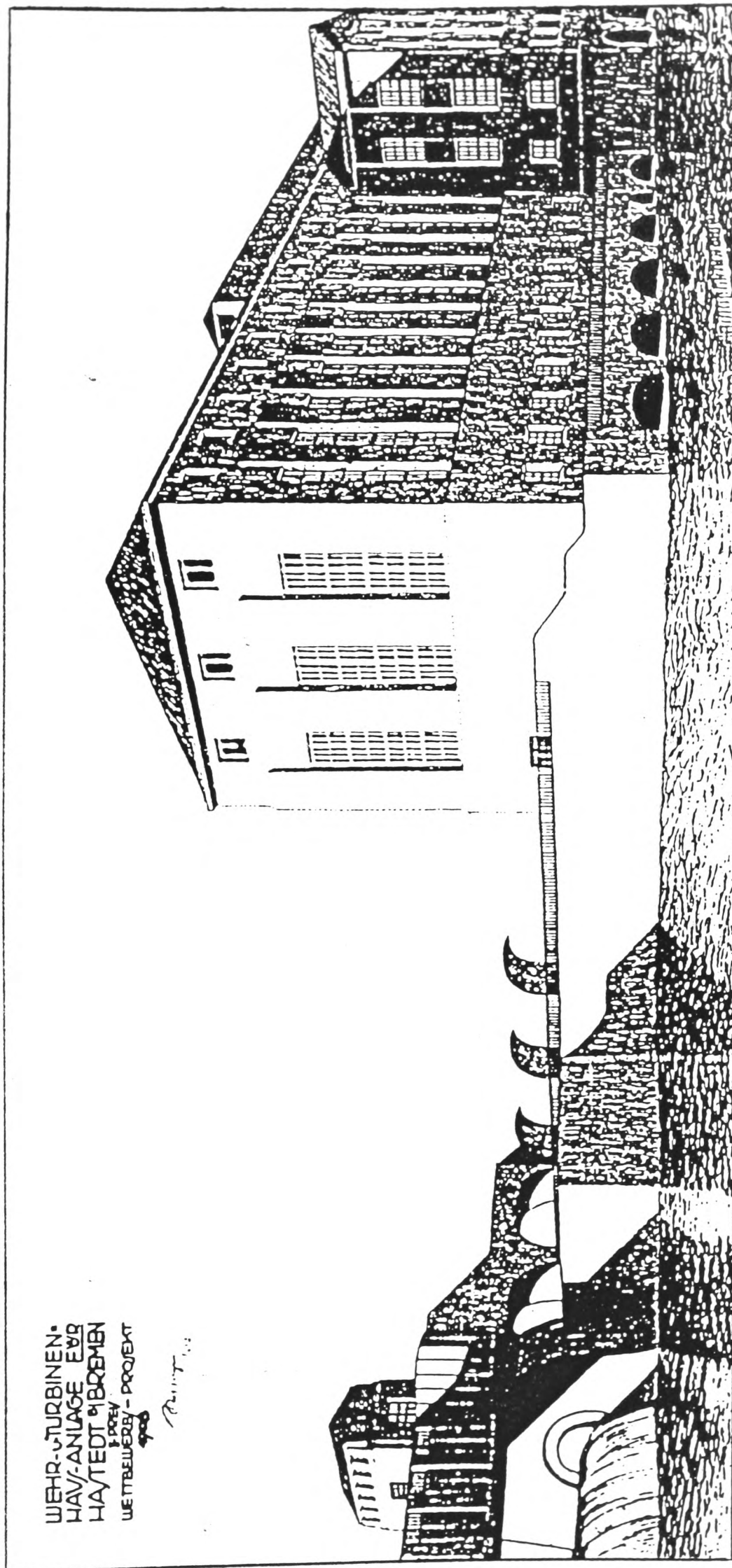
'Anker' linoleum drying halls, Delmenhorst 1910.
Arch. H.Stoffregen.

fig.116



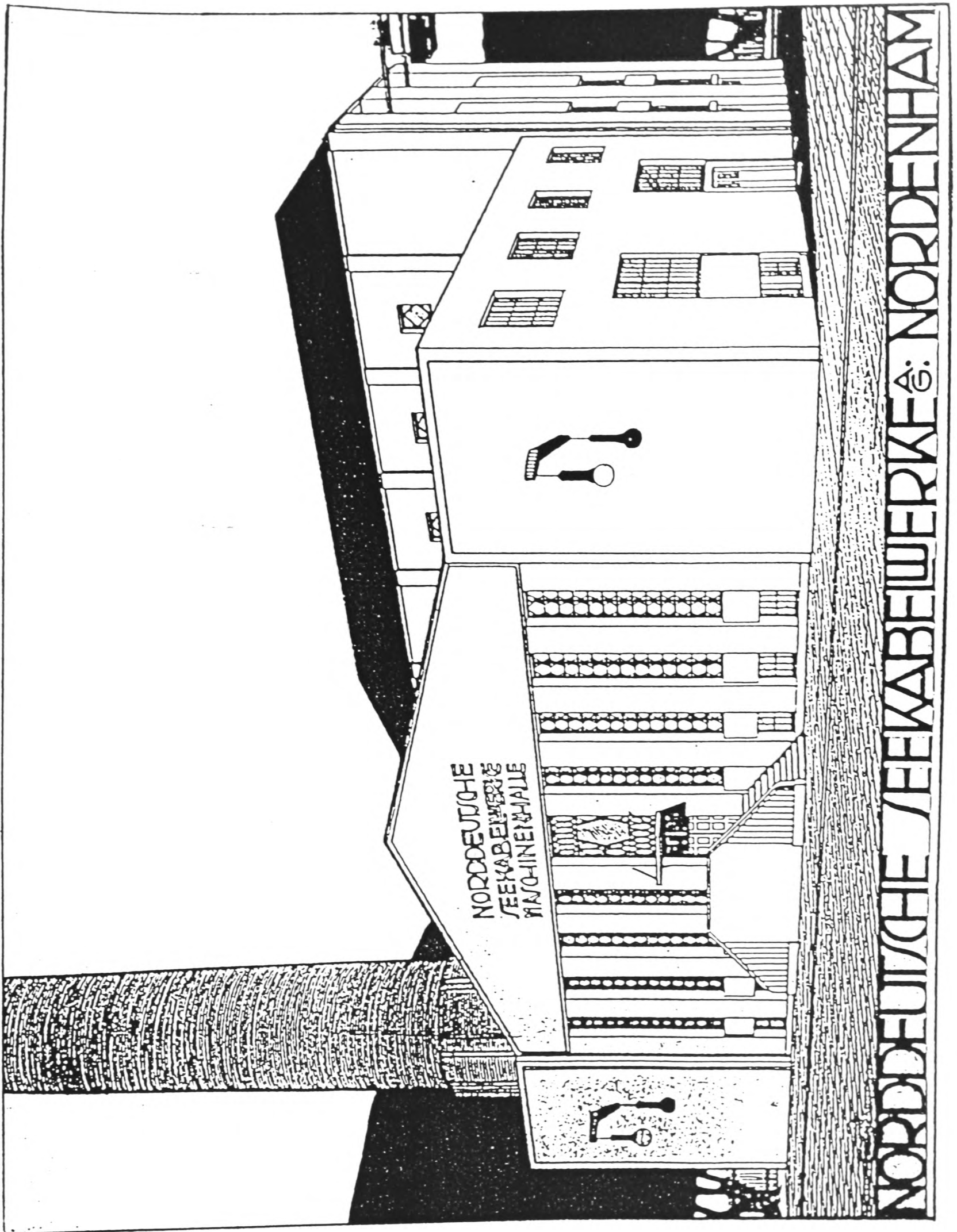
'Anker' linoleum storage sheds, Delmenhorst 1911. Arch. H.Stoffregen.

fig.117



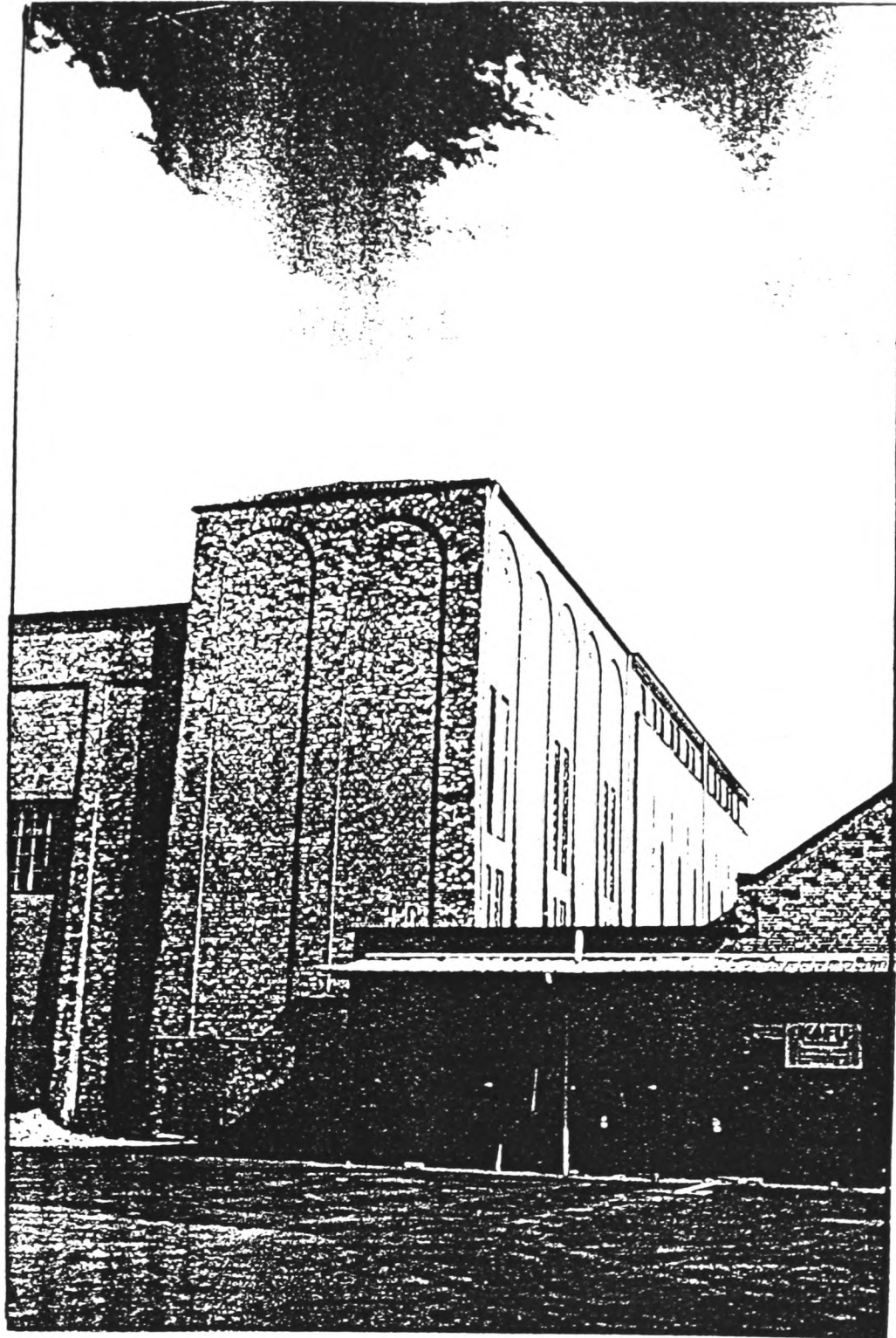
Hydro-electric power station, Hastedt Nr. Bremen. Competition entry (2nd prize winner), Arch. H.Stoffregen 1908.

fig.118



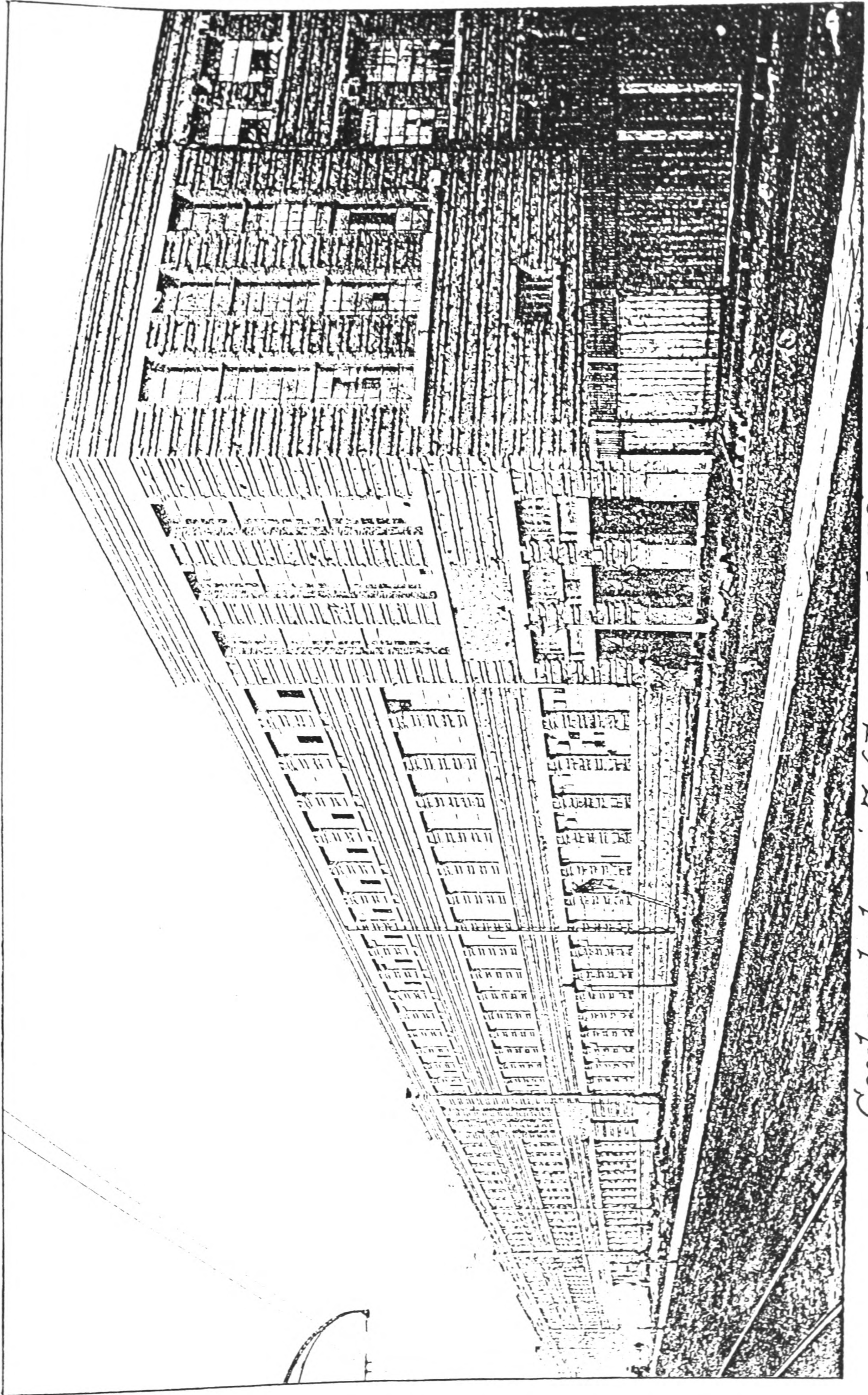
Norddeutsche Seekabelwerke AG machine hall, Nordenham.
 Arch. H.Stoffregen 1912 (unbuilt).

fig.119



'Hansa' linoleum drying hall, Delmenhorst 1925.
Arch. H.Stoffregen. Present condition.

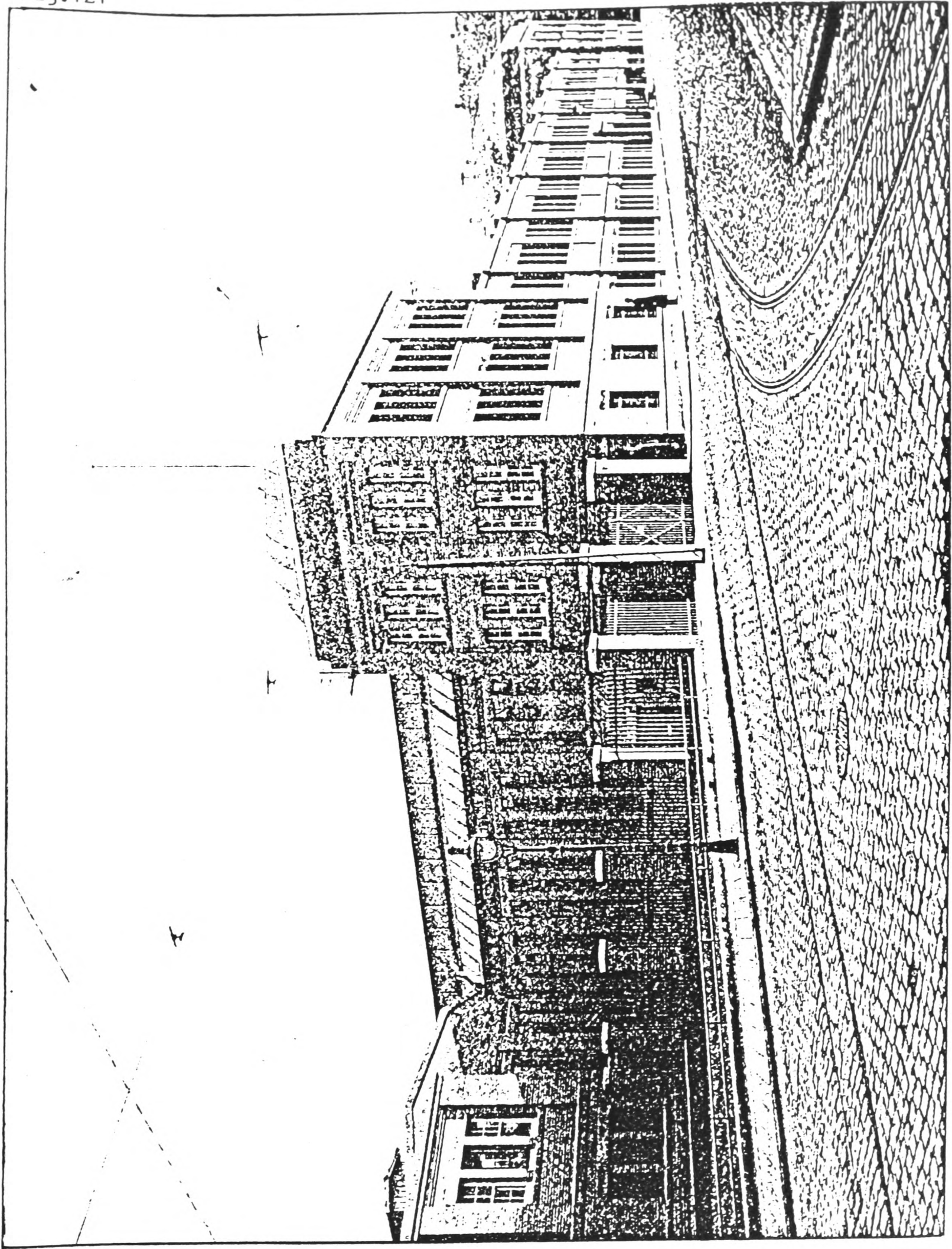
fig.120



Geschossdreherei 7 (Front an der Kruppstrasse)

Fr. Krupp armaments factory (Geschossdreherei VII), Essen 1916-17.

fig.121



Kanonen-Werkstatt 4 (Front an der Husmannstrasse-Bürogebäude-)

Fr.Krupp armaments factory (Kanonenwerkstatt IV), Essen 1915-16.