

ENDNOTES

Foreword

1. " Wer immer strebend sich bemüht, den können wir erlösen."

1. Ancestry and Early Days

1. Dr. Jur. Walther von Hippel, *Geschichte der Familie von Hippel: Part I* (Berlin: Berlin Buchdruckerei A. G., 1898); *Part II* (Königsberg, 1912). Ted and David von Hippel have updated the family tree to 1988.
2. Prommitzer Rat und Erbherr.
3. Lehensgu"ter.
4. Kurfürstentum.
5. Uradel.
6. Geheimer Kämmerer.
7. Kurfürst -- one of the electors of the Holy Roman Emperor.
8. Geheimer Sekretarius.
9. Theodor Gottlieb von Hippel, *On Improving the Status of Women* (1792), translated by Timothy F. Sellner (Detroit: Wayne State University Press, 1979). See also one of the best-sellers of its time, Theodor Gottlieb von Hippel, *Über die Ehe [On Marriage]* (1774), (Stuttgart: Deutsche Verlag-Anstalt, 1972). Theodor Gottlieb himself remained a bachelor.
10. "Aufruf an mein Volk," reprinted on pp. 69-70 of Part II of the family history.
11. Kant und seine Tafelrunde.
12. Sabine Hoth, *Bericht Über die Flucht von Garbeningen in Ostpreussen nach Hessen [Report on the Flight from Garbeningen in East Prussia to Hesse]*, 20 January to 1 October 1945." AvH and Paul von Hippel have both translated. Sabine Hoth lives near Frankfurt with her sister, Erika Bruch: 06103-4710 Feldstrasse 1/ 6073 Egelbach, West Germany.
13. From frontispiece of *Geschichte der Familie von Hippel*.
14. In Latin, this saying goes, *non videri, sed esse*, and in French: "plus être que paraître."
15. Extra-ordinarius.
16. Landes-University.
17. Schloss Holstein.
18. Kreisphysikus.
19. Landrat.
20. Ritter.
21. Eulenbutze.
22. "Gries brei."

2: WORLD WAR I

1. Nibelungen Treue -- a vow held true to the death.
2. Landwehr
3. "Bei schlechtem Wetter findet die Schlacht im Saale statt."
4. Landheim.
5. General-arzt.
6. Abiturium.
7. "Bodenreform."
8. Trommelfeuer.
9. Tank-atrappes.
10. "Nu, dann macht euren Dreck alleene."

3. STUDY AT LAST! BUT FOR WHAT PROFESSION?

1. Naturwissenschaftliche Fakultät.
2. David Hilbert (1862-1943).
3. Kriegsgewinnler.
4. "Bist du, mein sohn, bist du!"
5. "Landesjäger-corps."
6. Herman Nohl (1879-1960).
7. "Billige Büchermann."
8. "Kommerzienrat:" an honorary German title for someone who has made a contribution to industry.
9. Wilhelm Konrad Roentgen (1845-1923), discoverer of X-rays, received the Nobel Prize in Physics in 1901. Geheimrat is an honorary title for an older professor.
10. High silk hat, "Cylinder" in German.

11. "Thesaurus Linguae Latinae."
12. Festspiele - a take-off on the "Händelfestspeile," which in came into existence in Göttingen at this time (literally, "festival performance").
13. A. von Hippel, *Ann. Phys. [4]* 75, 521-548 (1924); *Ann. Phys. [4]* 76, 590-618 (1925).
14. Gänseliesel

4. PHYSICS BECOMES MY PROFESSION

1. Löschfunkenstrecke.
2. A. von Hippel, *Ann. Phys. [4]* 80, 672-706 (1926).
3. *Mikrophone und Telephone in ihrer neuzeitlichen Entwicklung*
4. "Landsmal."
5. "Ein freies Leben führen wir..."
6. "Das können wir viel besser!"

5. A ROCKEFELLER FELLOW IN THE UNITED STATES OF AMERICA

1. A. von Hippel, *Ann. d. Phys.* 87 (1928) 1035.

6. RETURN TO GERMANY AND MARIANNE

1. Li Seidler, Arthur's neice, thinks that perhaps he was not a von Hippel but a descendant of Peter

Bremer, Arthur's maternal grandfather.

2. Antritts-Vorlesung.

3. Stadt-Direktor.

8. OUR LIFE IN GERMANY IS ENDING

1. Erich Ludendorff (1865-1937).

2. A. von Hippel, *Z Physik* 67, 707 (1931); 309 (1931); 75, 143 (1932); 76, 1 (1932); 80, 19 (1933); 88, 358 (1939).

3. A. von Hippel, *Naturwiss.* 22, 701 (1939).

4. Frauenklinik.

5. Corrected from Dahlmannstrasse by Lisa Lisco (Daggie's sister) who added her own story as follows: "Shortly before they left for Turkey, this apartment was on the market. A uniformed S.A. man came to look at it, saw blond and blue-eyed little Arndt in his playpen and remarked, 'What a beautiful Aryan baby!' Daggie thought it wise to keep her mouth shut."

6. General-Landschaftsdirektor.

7. "Herr Kollege, heute habe ich ganz in Ihrem Sinne gehandelt; ich habe die ganze Familie Löwenzahn ausgerottet."

8. Lisa Lisco explained: "Kurt Hahn founded the Gordonstoun School in Scotland which Prince Phillip attended. I believe Hahn was Phillip's tutor for a time also."

9. Privatdozenten.

10. Nephew of Walter Rathenau, the assassinated head of the post-World War I German Foreign Office (see Chapter 3). Gert Rathenau emigrated to Holland, where he became a research director of the Phillips Company at Eindhoven and a science advisor to the Dutch government.

11. Lisa Lisco added that "Opa took many trips to Zürich to confer with Schwartz...and even went to Istanbul with him to check the situation out."

9. **ADVENTURES IN TURKEY**

1. The Roehm purge, 30 June 1934.

10. **INTERLUDE IN DENMARK**

1. "Ihre Gemahlin ist gerade angekommen."
2. Silvester.
3. A. von Hippel, *Ergeb. exact. Naturwiss.* 14, 79 (1935); *Z. Physik* 98, 580 (1936); 101, 680 (1936).
4. *Annalen der Physik* 80 (1926) 672-706; 81 (1926) 1043-1075.
5. cf. Arthur R. von Hippel, *Dielectrics and Waves* (New York: John Wiley and Sons, 1954), pp. 234-252.
6. An honorary title for an older professor.
7. *Mein Herz war in Pommern*.

11.

TO AMERICA AND M.I.T.

1. Lisa Lisco commented: "In the summer of 1936, the Bohrs let all of us (von Hippels, Francks and Liscos) stay in their summer house in Tisvilde."
2. *Naturwissenschaften* 22 (1934), pp. 701 ff.
3. F.H. Merrill and A. von Hippel, *J. Appl. Phys.* 10, 873 (1939).
4. A. von Hippel and J.W. Davisson, *Phys. Rev.* 57, 156 (1940).
5. A. von Hippel and R.J. Maurer, *Phys. Rev.* 59, 820 (1941).

6. The first camps: Buchenwald, Dachau and Sachsenhausen, did not have the overt mission of the death camps, which were set up later.
7. A. von Hippel, U.S. Patents 2,408,116 (filed July 12, 1941); 2,413,013 (filed April 13, 1942); A. von Hippel and J.H. Schulman, U.S. Patents 2,428,055 (filed Jan. 5, 1942); 2,429,655 (filed Nov. 21, 1942); A. von Hippel and M.C. Bloom, U.S. Patent 2,414,438 (filed Dec. 1, 1942); A. von Hippel and M.C. Bloom, *J. Chem. Phys.* 18, 1243 (1950).
8. A. von Hippel, J.H. Schulman, and E.S. Rittner, *J. appl. Phys.* 17, 215 (1946).

12. AT M.I.T. AND AT HOME DURING WORLD WAR II

1. S. Roberts and A. von Hippel, *J. Appl. Phys.* 17, 610 (1946).

13. TRANSITION FROM WAR TO PEACE

1. Paedagogik.
2. "complimented them out".

14. SUMMER-SESSION COURSES

1. *Dielectric Materials and Applications*, A. von Hippel ed., (Cambridge MA: The Technology Press and New York: John Wiley & Sons, 1954).
2. A.R. von Hippel, *Dielectrics and Waves*, John Wiley & Sons, New York, 1954.
3. *Molecular Science and Molecular Engineering*, A. von Hippel, ed., (Cambridge, MA: The Technology Press; and New York: John Wiley & Sons, 1959).
4. *The Molecular Designing of Materials and Devices*, A. von Hippel, ed. (The M.I.T. Press, 1965).
5. Cf. A. von Hippel "From Atoms Toward Living Systems," *Mat. Res. Bull.* 14, 273 (1979).

15. FAMILY EXPEDITIONS

1. Folke, who studies ancient Middle Eastern languages -- especially Hittite -- subsequently moved to Göteborg.
2. Lisa Lisco comments: "Aunt Greta was never married. Folke and Erland are sons of my Uncle Hugo, my mother's youngest brother, i.e. first cousins of Daggie and myself."

16. PERSPECTIVES

1. *Grafiek en Tekeningen.*