

Our Life in Germany is Ending

Darkening Skies

While still in America, I had attended an International Youth Movement Conference in Arizona and proposed Germany as the site for the next meeting. On my return I found the climate completely changed: the Nazis were on the rise, there were nightly street fights between Nazis and Communists, and Thuringia -- the state to which the University of Jena belonged -- was installing the first Nazi-dominated government, with Frick as Prime Minister.

Hindenburg, the venerated old General who had been Commander-in-Chief at the end of World War I, was Reichspräsident and had become senile. His excellent chancellor, Brüning, tried to come to a reasonable settlement of the impossible reparations forced on Germany in the Treaty of Versailles. But his efforts were stymied by France.

Hitler, whose famous Bierkeller speeches I deliberately missed hearing in Munich, had written his book, "Mein Kampf," while in confinement at a fortress after his unsuccessful Putsch attempt with General Ludendorff.¹ He had perfected his techniques of demagoguery and created, in the form of his chimera of the "International Conspiracy of the Jews," the perfect target for an outlet of the public frustration. A "Hitler Youth Movement" sprang up, the Arian myth was formulated with its "Hakenkreuz" ("Swastika") identifying the true believers. The paramilitary organizations of the SA (Sturm Abteilung [Storm Troopers]) and SS

(Schutz Staffel [elite guard]),* identified by swastika banners and armbands, began their nightly outrages against Jews and Communists.

The right-wing Conservative parties, representing big industry and the large landholders, had the ear of the President through his son, who wanted to inherit tax-free, the large estate in East Prussia that had been given to Hindenburg by the German people. They made the unforgivable mistake of having Hindenburg appoint Hitler as the Reichskanzler [Prime Minister] on 30 January 1933, hoping to use him as a tool to frighten the Allies. The German Parliament was put out of commission by burning down its assembly building, the "Reichstag" in February 1933. Hitler blamed the Communists for the deed, outlawed their Party, and persecuted its members. In June 1934, he crushed an internal rebellion in his own party and shot its perpetrators. Hitler's predecessor as Reichskanzler, the conservative General von Schleicher, was murdered with his wife while they were sitting at the tea table in their home. Hitler took the Army over and assumed supreme power. Hindenburg, old and dotty, became a figurehead. The nightly outrages against Jewish businesses were secretly enjoyed by their competitors.

In Opa Franck's Second Physics Institute at Göttingen, scientific life flourished in a last beautiful display. International celebrities like Bohr and Rutherford came for lecture series. I had the privilege of getting to know Rutherford better during such a series and climbing our Johannis church tower with him. When he gave his gala lecture at the University, Opa forgot Rutherford's name when he introduced him. After hedging about with "the man we all know," etc, he at last burst out with, "Dammit! What *is* your name?" and brought the house down (see Figure 49).

We had a number of Rockefeller fellows in the Institute, including Bob Brode and Sam Allison. Robert Oppenheimer also passed through. But somehow they had been involved in my life when I dreamed and spoke daily of Marianne. Therefore a bridge of understanding had been broken. Bob Brode became famous through a visit to our local apothecary where he wanted to weigh a parcel and inquired, "Haben Sie eine Wiege? Ich will etwas wagen!"* -- a lovely indirect suggestion for sexual intercourse, as he discovered to his surprise.

This last period in Göttingen was a fruitful one for me scientifically. In a series of experiments, I developed a basic understanding of the electric breakdown in gases and single crystals, discovering the negative sparks in gases, the direction of breakdown in solids, the meaning of Lichtenberg figures, etc.² This work led to a deeper understanding of the role of electrons in the onset of breakdown in gases, liquids and solids; the determination of the true electrical strengths of alkali halide

* Abbreviations for the fighting squads of the NSDAP (National-Socialistic German Workers' Party). The SA and SS were groups armed for attack or protection of party gatherings. The SS ousted the SA from power during the "Röhm Putsch" of 1934.

* "Have you a cradle [instead of a scale]? I would like to dare [instead of weigh] something."

crystals and their changes as a result of added impurities; an understanding of the formation of color centers; and the extension of these ideas to thunderstorms and lightning strokes.³

On the human side, my studies of crystals brought me into close contact with Professor V.M. Goldschmidt of the University's Institute of Crystallography, a genius and wonderful bachelor. He lived with his father and a number of pet squirrels who visited him through his open windows. They were named after his scientific enemies in his home-country, Norway. His father, sporting a mighty beard -- very unusual at that time -- was an admired spectacle in the swimming pool.

In 1932, I gave a lecture at the German university in Prague and was recommended for a professorship. I also gave a lecture in Berlin, which was attended by Einstein, Planck, Haber, Nernst and Gustav Hertz. A few months later, I was back with Opa Franck for discussions about a new Kaiser-Wilhelm Institute for Physics that was to be built for him. On that occasion, we were invited for the evening by Professor Nernst. He was not musical but very inventive and, with the help of a technician, had built the first "electric" piano. Max Planck, in contrast, was very musical. Invited to play the piano, he did so with deep distress and left immediately afterward.

Son Arndt was on his way but we were still able to make a trip in the early spring to Prof. Haber's farm in South Germany with Opa and Oma Franck and to go on from there to the Dolomites. Arndt obviously had a special guardian angel. On a trip in Haber's Daimler car, the roof suddenly collapsed on our heads and left me completely blindfolded. Fortunately, I could still stop in time. In the Dolomites, I went rock climbing with a guide and met the rest of the family on a mountaintop. Coming down, I heard a shout and Daggie shot like a rocket out of control down the scree toward the valley. Jumping into her way, I was bowled over but mother and future baby were stopped without harm. Finally, when Arndt was coming into this world in the Women's Clinic⁴ in Göttingen, the doctor -- supposedly always available -- had gone hunting. Fortunately the midwife discovered in time that the umbilical cord was strangling the baby and -- with the help of a young assistant -- brought him out with forceps in the nick of time. The doctor later sent us a big bill for *his* services and we were too grateful about the outcome to object (see Figure 50).

Our Life in Germany is Ending

We had moved into the second floor of a nice small house at the corner of the Merkelstrasse,⁵ three houses away from our friends, the Beyers, and in short walking distance to Opa's abode in the tower of the Levin Villa. The house was owned by the gardener, Wicke, who had a flower store and a very nice wife but was often drunk. One evening, before I came home from the Institute, the bell rang and a taxi driver shoved him into Daggie's arms dead drunk, saying, "Here you have your husband." Fortunately I arrived soon thereafter to disentangle the resulting melee.

Peter protested the existence of Arndt, with whom he now had to share the family affection, by a sleeping strike. Every night he kept us awake. Then Opa decided to give a hand. After a few days, he was a wreck: Peter kept him up all night at his bedside by clutching his hand even when asleep and setting up a tremendous howl when he tried to sneak out. We took Peter back home, let him cry through three nights, and the crisis was over. Still, he managed mysteriously to turn Arndt over in his baby carriage so that we found him hanging from his straps head down over the concrete floor. After that final crisis, Arndt became accepted.

In the meantime, the crisis in Germany began to approach its climax. The Rector of the University, a Professor of Agriculture and ardent Nazi, called a meeting of all the faculty and declared the constitution of the University annulled. He asked us to look out the windows where Reichswehr and Nazi Storm Troopers were lined up to break any incipient resistance. The First Physics Institute under Professor Pohl joined the Nazis. Our Second Physics Institute resisted but found a traitor in its midst. One of our Ph.D. students turned out to be a Nazi leader who had hidden secret Nazi plans for the takeover in his cabinet. Accidentally he had also locked away in the same cabinet a spectrograph I required for my next lecture. I needed the instrument but he was away in Berlin for a last briefing. I therefore had our master mechanic open the cabinet and took the instrument out without looking at the other contents. When the student came back, he feared his secret had been discovered and gave himself away by threatening me with arrest. We asked him to leave the Institute. After playing a big Nazi role for a while, he was killed in World War II.

Soon our personal lives became strongly affected by the fact that Daggie was Jewish. Old "friends" suddenly appeared shortsighted and could not recognize us anymore. When I walked in the streets, people crossed over to the other side. Our father had to certify his "Aryan origin." Our East-Prussian uncle, Walther von Hippel, Chief-Officer⁶ of that Province and the family historian, who had been especially agitated by my marriage to Daggie, was thrown into jail by the Nazi Gauleiter [Party Governor] Koch, whom he had previously dismissed as incompetent. Our father defended Walther before the German Supreme Court and

got him freed but the Nazis simply put him back into jail. Uncle Walther wrote me a letter of apology and then committed suicide.

My encounter with two professors of theology was in a lighter vein. One was a lovely man living not far from my father's house, the other an ardent Nazi passing by. The former, cleaning up his vegetable garden, called over to the latter, "Dear colleague, today I have acted in your style: I have rooted out the entire Family Löwenzahn." (Löwenzahn is the German name for the dandelion and is also a Jewish name.)⁷

In the spring of 1933, a Hitler edict banned Jewish students from the universities and Jewish professors were subsequently dismissed (Born, Courant, etc.). Opa Franck was exempted since he had received the Iron Cross, First Class, for heroism during World War I (see Figure 51).^{*} Obviously, he did not want this preference. We therefore sat down with him and some friends to formulate a statement of resignation. The friends included Kurt Hahn, the director of the progressive youth-movement school, Salem, at the Bodensee (founded by Prince Max von Baden, who subsequently emigrated to England and became the educator of Prince Phillip⁸).

In the early morning hours, we telephoned the declaration to the "Göttinger Zeitung" [Göttingen News]. Opa's wonderfully dignified statement of April 1933 came as a bombshell to the Nazis and the University faculty who had made peace with them. A counter-declaration condemning the statement appeared in the "Göttinger Tageblatt" [Göttingen Daily] of April 24, signed by forty-odd professors and lecturers. Since the Nazis had already tapped our telephone lines, we were also individually attacked in the main Nazi-newspaper, the "Völkischer Beobachter [People's Observer]." I was so angry that I went to the Nazi-headquarters in Göttingen -- ironically located on the "Jüdenstrasse [Jew Street]" -- and tried to challenge its leader to a duel. They kept me waiting endlessly for him and nothing came of this childish gesture. Unfortunately the consequences for the "Göttinger Zeitung" were more serious. The paper was suppressed and ceased publication, while the "Tageblatt" flourishes to this day.^{**}

After Professor Franck's resignation, we young Assistant Professors⁹ took over: Hertha Sponer, Cario, Heinrich Kuhn (married to Professor Nohl's daughter Mariele), Werner Kroebel and I. When I went to Professor Pohl to tell him that he was the only full Professor of Physics left and had to assume leadership, he went to

* Franck was in charge of an infantry company that was supposed to storm the French trenches. When zero hour came, he led the charge but no one followed. Fortunately, the French knew of the plans and had evacuated their first line of trenches. As a result, Franck was able to capture the French position single-handed.

** See Alan D. Beyerchen, *Scientists Under Hitler* (New Haven: Yale University Press, 1977), chapter 2, for another description of these events.

bed. We young people therefore acted alone, brought the remaining Ph.D. students through the final stages and prepared to close down. One of these students, Gert Rathenau, later had a very distinguished and adventurous career and is still my close friend.¹⁰ Another one, Meyer-Leibnitz, became an outstanding German scientist.

Professor Franck's declaration was re-published in England and Professor Lindeman of Oxford came over to help. Lindeman offered to take me back to Oxford but we felt that Heini Kuhn, the only one of us with a Jewish background, was more endangered. Heini and Mariele therefore went on to Oxford and a distinguished career. Soon thereafter, Professor Schwartz in Zurich succeeded in arranging with the Turkish dictator, the Ghazi Mustafa Kemal, that a new European-type university should be founded in Istanbul (formerly Constantinople) and about 30 European professors be hired to staff it.¹¹ I was one of the "lucky ones" selected and went to Zurich to receive a German contract as "Professor of Electrophysics," my proper field, and a French contract as "Professor of Electro-Technique" -- a designation which led to my later downfall. I arranged to take Dr. Rathenau as my Assistant, and Walter Rieger, the master mechanic of Professor Stern in Hamburg, as my master machinist, and prepared to leave.

My friends in industry were greatly upset by my going into exile and gathered surplus equipment in their laboratories to help me get started. The Curator of the University of Göttingen kindly tried to persuade me to swear the oath of allegiance to Hitler. I refused. As a former officer I was under the jurisdiction of the German War Department and had to obtain permission to leave. Telephoning the officer in charge in Berlin, I was mistakenly greeted with warmth as a volunteer for the new order, but was then coolly dismissed when I explained that I had a Jewish wife and no intention to divorce her. A similar chilly reception occurred at the town offices where I got rid of my responsibility for the Johannis Church tower and received my exit visa. Now I was ready for my trip to Istanbul via ship from Italy. Daggie remained with Opa with the two young boys (Peter not yet two and a half, Arndt about one year old) until everything in Turkey could be prepared for their arrival.

The preceding account may sound unduly heroic but my actions were nothing of the kind. I felt only duty-bound and adventurous. The real hero of the occasion was Daggie, saddled with two little children and an unrealistic husband. In our last night together at Göttingen, a tremendous display of shooting stars occurred. We watched in awe in the backyard with our friends, the Beyers, and took it as an omen of things to come.



49. James (“Opa”) Franck in Göttingen
(American Institute of Physics, Niels Bohr Library)



50. Last family picture in the backyard of von Hippel parents' home. Left to right: Fritz and his wife Bertel; Dagmar with Arndt; Ernst, his wife Gertrude and daughter Li; Robert von Hippel's second wife, "Tante" Bezi, Robert and Arthur with Arndt (1933).



51. Opa Franck on furlough in 1915 with his family in their garden plot in Westend, a suburb of Berlin, where they lived at the time (Dagmar on the left, Lisa on the right).