

JOURNEY OF A GERMAN PROFESSOR TO ELDORADO

Ludwig Boltzmann

University of Vienna

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PREFACE

Ludwig Boltzmann is well known for his important contributions to statistical mechanics and an early atomistic description of matter, e.g. the Maxwell-Boltzmann distribution and the famous relation between entropy and probability. But Boltzmann's interests extended far beyond theoretical physics, including, e.g., biology, and, in particular, philosophy in his later years. There exist a number of so-called "Popular Writings" where he discusses a variety of different subjects outside physics.

The following is an English translation of an essay written by Ludwig Boltzmann in 1905, after he visited Berkeley. Reference is the German original "*Reise eines deutschen Professors ins Eldorado*"

Editorial Note: The publication in *Transport Theory and Statistical Physics* of this special contribution seems especially appropriate in view of the impending (1994) sesquicentennial of the birth of Ludwig Boltzmann.

from the book *Populäre Schriften* by *Ludwig Boltzmann* published first by Barth, Leipzig, 1905, and reproduced more recently by Vieweg, Braunschweig/Wiesbaden, 1979. Permission for this translation by the Friedrich Vieweg & Sohn Verlagsgesellschaft mbH is gratefully acknowledged. Throughout the translation, *italics* are used whenever words or phrases from the German original are quoted.

Boltzmann's description of his visit to Berkeley at the beginning of this century is a very personal record of impressions and feelings during the trip, something rarely encountered in writings of scientists. It is both amusing and educational to learn what one of the great European physicists experienced on his trip from Vienna to California, at such an early time in the history of American science. If nothing else, it reveals in a charming way that great scientists are humans after all.

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Walter Kutschera
Physics Division
Argonne National Laboratory

After I had been in America several times, and in Constantinople, Athens, Smyrna and Algeria, I had collected many requests to put some of my travel experiences into print. But to me, all this seemed to be too insignificant; however, my last trip to California was something really exquisite; therefore, I now dare to attempt a small chat about it.

By no means do I wish to imply that it is necessary to travel to California to see something interesting and beautiful and to enjoy oneself. One can feel as much pleasure and joy as the heart can hold by hiking through the beautiful mountains of our home country. One can be happy as a king with a simple meal, but a journey to California is champagne, *Veuve Clicquot*, and oysters.

The first part of my trip was marked by rushing, and it will also be reported in a hurry. On June 8th I attended, as usual, the Thursday meeting of the Vienna Academy of Sciences. When I left, a colleague noticed that I didn't go to the *Bäckerstrasse* as usual, but turned to the *Stubenring*. He asked where I was heading. "To San Francisco," I answered laconically.

In the comfort of the restaurant of the North-West Railway Station, I ate a roast pork with kraut and potatoes and drank a few

glasses of beer. My memory for numbers, usually quite reliable, always has difficulty keeping a record of glasses of beer.

Nobody with any experience in traveling will be surprised when I talk about eating and drinking. It is not only an important factor, it is the central point. It is most important during travel to keep the body healthy in face of the large variety of unaccustomed influences, most of all the stomach, and in particular the pampered stomach of a Viennese. No Viennese will be unmoved by eating his last *Gulasch* with *Nockerl*. And while the Swiss is homesick remembering *Kuhreihen* and cow bells, the Viennese is homesick remembering smoked pork and dumplings. "Don't say it's age which makes me childish, I just discovered that I am still really a child."

After I had finished my meal, my wife and children arrived with my luggage already packed. A quick goodbye and I was on my way, first to the *Kartell* meeting of the Academy in Leipzig which started the next day at 10 a.m. On the train I got myself as thoroughly clean as was possible (for this I would have had good use for the washrooms of the American railroads!). Immediately after the train arrived in Leipzig, I took a cab and made it to the meeting on time.

At the door of the entrance hall, I happened to meet my colleague, Credner, who was also heading for the meeting. He most graciously helped me carry my luggage to the antechamber of the meeting room, since I couldn't find a place to deposit it anywhere else.

I went to these *Kartell* meetings with some hesitation: a subject was supposed to be on the agenda which could lead to a lot of trouble for me.

Will the reader be bored if I guide him around for a short while through the workshop of scientific labor to show him the facility and to explain some of its functions? I hope not. These days you can hardly find an educated person who has not visited one of the large factories, listed in the *Baedeker*, which manufacture iron or leather goods or glass ware. I find it both entertaining and educational to satisfy one's curiosity as to how objects of daily use are brought into their familiar shapes. Why shouldn't I also expect some curiosity concerning the mechanism of a factory which, I assert, is more important for human culture than the largest leather factory, hopefully more flexible than leather.

Several German academies and scholarly societies have joined together to hold common annual meetings to discuss subjects of general importance. This is the Academy *Kartell*. It decided some years ago to provide financial support for a large book project, the Encyclopedia of Mathematical Sciences. The field of mathematics has increased its scope enormously during the past century; moreover,

every author uses his own notation and very often writes in a way that is difficult to understand, so that even an expert close to a field can only follow it with great effort. However, there is a lot of indispensable information, useful for both theory and practice, buried in the mathematical literature. But it is hard to understand, often nearly impossible to find, and scattered over the entire globe.

The purpose of the encyclopedia mentioned above is to establish a well-organized collection and an easily understandable description of all this material. It should make it easy for the mathematician to find everything produced in mathematics, and at the same time build a bridge to the practical, that is to bring mathematics closer to the practitioner, and the practical closer to the mathematician. The need for such an encyclopedical collection of the mathematical literature is so obvious that Professor Klein from Göttingen has described it as the mathematical equivalent of the 'need for public lavatories'.

Such an endeavor would not be so enormously difficult if it were only to be concerned with naming the most outstanding achievements, without too much criticism, and with lists of the most important and also, naturally, best known subjects. However, if one wants to bring to light in all areas all the really useful stuff, exclude everything unimportant, aim for maximum completeness in the literature, and display everything in a clear and convenient way for the use of the reader, then the difficulties appear to be almost terrifying for anybody only moderately well-acquainted with the mathematical literature. The above-mentioned Professor Klein was attracted by this idea; the academies give the money for printing costs, the honoraria and travel expenses for the authors; Klein and his scientific staff do the job.

From all nations around the globe, one has to find the person who best knows a particular field. As it turns out, Germans, French, Russians and Japanese work together in harmony. The selected person is often a great man who has enough money and a little time, maybe not too much drive to work, but a correspondingly larger stubbornness. He must first be persuaded to promise a contribution; then, he must be instructed and pressed with all means of persuasion to write a contribution which fits into the general framework; and last, but not least, he must be urged to fulfill his promise in a timely matter.

It can take hours to discuss the issue of whether one should include an article now which would fit in better at a later stage, just because it is available, and those which one wanted to have first are missing. Money is made available for trips of Klein and his apostles into all countries of the world, in order not to free the person guilty of not delivering his article from the pressure of a personal consultation. One gap remained open for a long time because the selected person, a mathematically accomplished Russian officer, was locked up in Port Arthur. I have been attending such

encyclopedia meetings quite often; German playwrights could profit from their dramatic excitement.

Now back to myself. When Klein charged me with an encyclopedia article, I refused to accept for a long time. Finally he wrote to me: "If you don't do it, I shall pass it on to Zermelo." This person represents an opinion diametrically opposed to my own. So that his opinion would not become the dominant one in the encyclopedia, I answered immediately: "Before the Pestalutz does it, I'll do it" (All quotations, most of them taken from Schiller in post-celebration of the Year-of-Schiller, are shown in quotation marks; one may check on them!).

Now the time has come when my article is due. I would have preferred to recover from the stress of travel at some country site in September but I had given my word; and therefore, I will have to dig into the literature in September together with a small group of physicists from Vienna to finish the article. "Eternity to sworn oaths" (*Ewigkeit geschworenen Eiden*).

Professor Wirtinger seemed to have experienced a similar situation because he sketched a mousetrap as a symbol of the encyclopedia; the bacon lures and the professor is caught.

But what is the irresistible attraction of this whole work? Special credit cannot be earned, except to have something useful; I won't even mention money. What drives Klein to find exactly the vulnerable point where one can be persuaded, with a psychological knowledge for which philosophers would envy him? It can only be idealism; and let's open our eyes, we find idealism everywhere from here to the Pacific Ocean. There, two white and massive towers greet us, the Lick observatory, the work of an idealist and hundred-fold millionaire; more about this a little later. I have wondered for a long time whether, in America, it is more remarkable that millionaires are idealists or that idealists are millionaires. What a lucky country, where millionaires think idealistically and idealists become millionaires! But don't forget smoked meat and dumplings. Everywhere idealists need a good stomach.

The idealism of Klein and his collaborators has borne good fruit. Even after publishing the first issues, the edition had to be increased; a French translation has been started; an English one will follow soon. The academies have made a good choice and the bookshops have done good business.

Unfortunately, the Berlin Academy of Science does not belong to the Kartell and does not participate in the whole enterprise. It was also not represented at the Congress of Meteorologists in Southport and at the Congress for Solar Research in St. Louis. I am afraid that the principle of not participating in anything it has not started will be more damaging for the Academy itself and for

Germany than for science. I was annoyed that in Southport and in St. Louis the French always took first place among the foreigners (non-Englishmen). Germans need not to be second to them! But what could I do, being Austrian? If only Hann, whom everyone missed, could have been present among the meteorologists! However, he cannot be persuaded to travel at all!

Since I have started gossiping, I might as well let it all out. Therefore, I will not hide the fact that an American colleague talked about the general decline of Berlin. Indeed, when Weyerstrass, Kronecker, Kummer, Helmholtz, Kirchhoff were present the American mathematicians and physicists tended to study in Berlin, whereas now they prefer Cambridge and Paris. Because America is learning less from the Germans, America, and with it the world, is declining. This colleague also argued that a lot of things would be in better shape if I would have accepted the offer from Berlin. Certainly not through my lectures; but a single person can make the difference if he works with guts and idealism, like Klein, on questions of appointments and novel activities. Many seemingly unavailable person could have been made to come, if one had really wanted to have him. A small wheel which always works correctly, and in the right spot, can achieve a lot.

If I dwell this long on all cities the size of Leipzig, I will not get very far: "One should not count the inhabitants, but instead weigh them." Which means, of course, their intellectual importance.

After some very comfortable and intimate dinners, and an official one where I met Seydewitz, the Saxonian Secretary of Education, for the first time (even though I had served under him previously two years as professor), I moved on to Bremen and then went with a Hohenzoller prince to New York. This should not be construed as though I had been honored to accompany this prince to New York, but he carried me on his back. It was the *Kronprinz Wilhelm* on the way to New York and the *Kaiser Wilhelm II* on the way back.

Dear reader! I am in a great hurry, but I am not going to dispose of the ocean journey from Bremen to New York with this trivial joke. The big ocean steamers are among the most admirable things made by man and a journey on them turns out to be more beautiful each time. The wonderfully blustering sea changes every day, and every day it is more amazing. Today it is white with foam, roaring wildly. Look at the ship over there! Now it is swallowed by the waves! No! The keel emerges victoriously once again.

The next day the weather is calm, the sea smooth but foggy-grey; foggy-grey also the sky, just as one would paint melancholy.

Then the sun breaks through the fog, and yellow and red sparkles dance on the waves between the deeply-dark shadows of clouds; the golden light is wedding the darkness. And then, once more the whole sky is blue, and the sea - azure in white - radiates in such overwhelming brightness that one has to close one's eyes. On selected days only, it decorates itself in its most beautiful, the ultramarine blue dress, a color so dark and yet so glaring, with milky-white foam as if trimmed with lace. I once laughed when I read that a painter was searching day and night to find a single color of the sea; now I don't laugh about it any more. I cried when I saw this color of the sea; how can a color make one cry? Then the glowing moon and glittering sea in pitch black night! One should be a painter to describe all this splendor, and even then one could not do it.

If there is anything more admirable than this beauty of nature, it is the skill of man, who has been so completely victorious in his battle with the endless sea, lasting since the time of the Phoenicians and longer. How relentlessly cuts the keel across the sea. How vigorously foams the god of the sea under the boring screw! Indeed, the greatest wonder of nature is the skillful mind of man!

If I were to be asked like Solomon once was asked 'Who is the most fortunate of all mortal beings', without hesitation, I would have named Columbus. It is not that other discoveries could not parallel his, already that of the German Gutenberg can do that. But happiness is also determined by sensual effects, and those must have been the strongest for Columbus! Never can I land in America without a certain feeling of envy for him, or maybe more correctly, without a certain blissfulness that I can experience a small part of his joy. Of course, Columbus did not travel with *Kronprinz Wilhelm* and he did not see New York with his physical eyes, but with his spiritual eyes he may have seen more than we do - New York after a hundred, two hundred years!

Therefore, Columbus became the prototype of discoverers. His 'always, always towards the west' stands for their endurance, his 'land, land' for the joy of success, and the whole enterprise for the conviction that life is not the highest of goods. "If you do not put your life on the line, the highest attainments will be forever denied you." (*Setztest du nicht das Leben ein, nie kann dir das Höchste gewonnen sein*).

Not only the sense of beauty, but also all the other senses find their full satisfaction on an ocean journey. A copious and good cuisine takes care of your taste for food, and a pretty nice orchestra takes care of your musical ear. Our Viennese composers are often marching along, not the really great ones to be sure, but Strauss, Ivanovici, Waldteufel and many others. The 'Waves of the Danube' (*Donauwellen*) were vividly applauded on the waves of the Atlantic Ocean; and in fact, if we think of Haydn, Mozart, Schubert, and

Beethoven, we may say about the Danube just as Schiller said about the Ilm: "Her softer waves in passing by have overheard many an immortal song" (*ihre leiseren Wellen haben im Vorüberziehen manch unsterbliches Lied erlauscht*).

So, there is nothing more comfortable than life on a ship, in particular for somebody who, blessed by a god, is free of sea sickness and can calmly view the many sick ones. The fun reaches its climax when suddenly and unexpectedly due to an accidental hydrodynamic occurrence, a wave splashes on board and strikes those dozing who then jump up screaming.

Whenever I enter the harbor of New York, I am seized by a kind of ecstasy. The towering buildings and the Statue of Liberty with the torch held high! And this medley of whistling and singing ships, one with a harsh warning, the other a scared scream, one a lively whistling, another wailing in melancholic fourths, and there, the inimitable sound of sirens ringing! If I were a musician, I would compose a symphony: The Harbor of New York.

But this time I had no time for sentimentality. Once in Hoboken I immediately took a cab which should have taken me first to the office of the Southern Pacific Railroad, and then directly to the railway station and all that for three dollars. But at the office I learned that the special express train, for which I had a ticket with a reduced fare, only runs twice a week. Thus, I had to wait for two days in New York. So I directed the cab to take me to the Westminster Hotel and I had time to poke around in New York for two days.

It is certainly not boring there. What a richness of entertainment and observation is given by a simple ride on a street car! Tickets are not issued. There is no rule against overcrowding, and there aren't any different fares. The conductor spots every new passenger with the eyesight of a falcon, each one puts 5 cents into his hand. A pull on a rope and the payment is registered in a counter, located at the top of the car. At the same time a bell rings which everybody hears. If one has a spot near the driver, one can admire leadership talents which aren't inferior by very much to those of a Napoleon I or Moltke. One should experience for oneself how frantically quickly an open stretch is covered, and how fast one stops right in front of each auto (they simply pass carriages and street cars with sharp turns), and the many other things which make New York worth seeing.

On the third day things went faster. I made it in four days and four nights from New York to San Francisco. One gets simply catapulted; in a sense, shot forward. The thumps one obtains by walking through the endless train to the restaurant or observation car and so forth are not particularly comfortable. The observation cars are completely open at the back. One can sit on the

terminating railing or even lean over it and one must simply be careful not to fall off when a sudden bump is encountered.

The landscape was monotonous most of the time, but just observing directly the speed of travel is interesting in itself. When one looks backwards from the observation car, the rails appear like an endless band which is being pulled from under the car with fantastic speed. Also of interest was the ride over the huge wooden trestle across the Great Salt Lake, and the large areas before and after it, covered with snow-like salt crystals. Towards the end of the journey, the crossing of the Sierra Nevada is very beautiful. It reminds one of the Semmering. Certainly not quite as picturesque, but much more grandiose considering the length of the stretch and the altitude of the mountains.

Due to the delay in New York I arrived late in Berkeley. The summer school started on the 26th and I arrived that evening. However, since the day was spent only on introductory talks and registration, I would not have missed a single lecture if I could have started next day at 9 a.m. But I wasn't able to. Only now did I feel the effects of four days of rattling and bumping. I could not walk on quiet ground securely and at night I woke up often, frightened that I was not being bumped and yet dreaming of bumps.

Now, I must admit that I always have some stage-fright before my first lecture; here, in particular, where I was supposed to speak in English. During the trip I had less opportunity for English conversation than I had hoped for. The English-speaking Germans switched to German after a few English words. The genuine Englishmen did not talk to me at all.

My English conversation followed the following scheme. I: *When lunch will be served?* He: *ieeöö*, I: *I beg you, could you say me, at what hour lunch will be served?* His gargling now was at least a fifth lower: *aouu*. I understand the failure of my attack and shout in desperation: *Lönch, lanch, lonch, launch*, and so forth. I produce vowels one would look for in vain in Gutenberg's letter case. Now his face signals some understanding: *Ah, loanch?* Now the bridge of communication is established. I: *When? at what hour?* He: *Half past one!* And now I should give thirty lectures in this language! So, I declared myself unable to lecture on Tuesday June 27th and started instead on Wednesday. At the first lecture I was somewhat timid, but at the second one I was less hesitant. And, after I heard that the students did understand me well and that, indeed, they found my presentations to be very clear, I soon felt at home.

I cannot help saying that I want to thank my English teacher in Vienna, Miss May O'Callaghan, for this success. Without her untiring efforts to help my resisting tongue, I couldn't have achieved it. How proudly I used the words *chalk* and *blackboard* when I had

to get chalk for writing and an adequate blackboard! How well I could pronounce words like algebra, differential calculus, chemistry, natural philosophy and so forth!

Yes, I also owe an excellent lobster salad to my diligence in learning English. There, on the menu, it said *lobster salad*. Immediately I was reminded of a lesson where I couldn't believe that *Hummer* is called *lobster*; hence I ordered the *lobster* and relished it with delight.

The University of California at Berkeley, where I lectured, is the most beautiful place one can imagine. A park of one square kilometer, with trees which have seen centuries or maybe millenia? Who would know an answer right away! In the park there are beautiful and up-to-date furnished buildings, though they were already too small; but new buildings were being erected, the space and the money were available.

Above it all there lingers a certain philosophical touch. The name Berkeley is that of a highly respected English philosopher who is praised for having invented the greatest folly a human brain ever concocted, philosophical idealism, which negates the existence of the material world - an idealism with a different meaning compared to my own understanding of this word. Here, philosophy has its own building, not a building of phrases and phantoms, pardon, I should say of logical conclusions and rational notions, but instead a veritable structure of stone and wood, where the psyche is being investigated with tuning forks, colored discs, chymographs, and counting devices.

A different building was more important for me. An adventurous innkeeper had read in an encyclopedia that Berkeley was an English bishop whose residence was called Cloyne Court. Therefore, he built an inn for professors which he named Cloyne Court and where I also resided. He set no value on having some similarity with an old English bishop's residence. It was located in Euclid Avenue and had the form of a perfect parallelepiped without a trace of non-Euclidean structure. But it was comfortable inside. I had a small bedroom, a somewhat larger working room and a bathroom, all electrically illuminated. It was possible to circulate warm water through thick pipes in the rooms, creating a modest warmth, which was often welcome in July, where at a latitude of Palermo, an ice-cold wind sometimes blows from the Pacific Ocean. In contrast to Palermo, Berkeley is only a little colder in winter than in summer; but there is a lot of rain which is completely absent in summer.

The food was good. At least there was a choice and one could usually choke down something. Printed menus did not exist. Before each meal the menu was usually recited by a bespectacled waitress, which sounded like a monotonous song performed with a soft voice.

"But life's unmixed blessings are awarded to no mortal being" (*Doch des Lebens ungemischte Freude ward keinem Irdischen zuteil*), not even on a trip to Berkeley. First the stomach should speak. I had never drunk water from either open or closed bottles containing river water and carbon dioxide, and therefore I kept my stomach healthy - despite the unusual food. But Berkeley is dry; drinking of beer or wine or the sale of it is strictly prohibited. Since I didn't want to die of thirst, I tried water, but with no ice. I thought it is safer in Berkeley than in New York and St. Louis. Unfortunately it is not and my stomach revolted. After that I was forced to stay dressed for a whole night in order not to take clothes on and off too often. This incident finally encouraged me to ask a colleague about a liquor store. The response to this question reminded me of a scene in the smoking compartment of the train between Sacramento and Oakland. An Indian had joined us who very naively asked about a - let's call it Bajadere's house (because he was an Indian) in San Francisco. Most of the people in the smoking compartment were from San Francisco and girls with the motto: "*Give me money, I give you honey*" certainly exist in San Francisco. But all people displayed disconcerted and embarrassed faces. My colleague showed the same face when I asked him for the liquor store. He looked around with anxiety to see whether somebody was listening, then he looked at me to find out whether he could trust me and finally told me about an excellent store of Californian wine in Oakland. I managed to smuggle in a large supply of wine bottles and the route to Oakland became very familiar to me from then on. My stomach also said, 'Amen,' and it recovered amazingly fast, even though the food didn't change. But I had to secretly drink a glass of wine after the meals, and I almost developed a feeling of indulging in a vice. Prohibition is well on the way to increasing the number of hypocrisies with a new one, and there are already enough in the world.

Shortly after my stomach was silenced, other maladies turned up. Usually my troublesome asthma disappeared as soon as I boarded a steamer, and stayed away until I touched European soil again. But this time it was only until I arrived in California, where the moist coolness, which its climate is praised for, lured back an unwanted intruder, the asthma.

Then, I got a boil in the armpit (I believe this was due to a newly acquired shirt which I used without first washing it). I had to get it lanced at the Roosevelt hospital. It was extremely interesting to get to know an American hospital whose elegance was not less than the *Kaiser Wilhelm II* (of course, I mean the steamer), but I paid 35 dollars for the experience. This was the most expensive luxury of the whole trip, and it deprived me of a more pleasant adventure.

As it turned out, Tuesday, July 4th, was Independence Day, the most important holiday in America. Since I had no lecture on

Saturday and Sunday, I only had to skip the Monday lecture and make it up later, to gain four days for a quick visit to Yosemite Valley. This plan was abandoned; instead I heard a half-hour of free music which was performed every Sunday in the Greek Theater. This theater is nearly an exact copy of the Sophoclean Theater in Athens, except it may be somewhat larger. Since it never rains in Berkeley in the summer and the sun doesn't shine often because of the frequent fog, the completely open theater works very well. But the music was a little thin in the architecturally beautiful site surrounded by eucalyptus trees and live oaks. This would have been the right place for Mahler and the Philharmonia playing the Third Symphony with the trees vibrating in delight and the Pacific Ocean even more pacified by listening; but here, the people probably wouldn't have understood it anyway.

On Tuesday I watched the fireworks from the roof of Cloyne Court. These are let off annually on Independence Day. Cloyne Court is located on a hill, providing a view of San Francisco Bay, the Golden Gate, Mount Tamalpais, and so on. The old English bishop could hardly have wished for a more beautiful view from his Cloyne Court.

The Lord, Himself, seemed to be pleased with the celebration because He started with a firework of a sunset worthy of His own greatness and His creation. Once again, I had the desire to paint, as I often had on my trip to America.

After the final glow of the sunset vanished and the brilliant lights of San Francisco greeted us across the bay, the fireworks of the humans began. Now, a many-colored light flamed up wonderfully beneath us; there, a glowing star radiated far at the horizon. Where should one look? In Berkeley and San Francisco it gleams; but there in Oakland, what a beautiful effect - barely glimpsed - only to miss an even more beautiful one in Alameda. I decided that I would let off some fireworks of my own every July 4th in my garden at home. The battle of Washington and his comrades has not only local historical importance; it also has world historical significance.

Schiller once said: "Another few thousand fellows like me, and Germany will become a republic, compared to which Rome and Sparta were nunneries" (*Noch ein paar tausend Kerle wie ich, und aus Deutschland soll eine Republik werden, gegen die Rom und Sparta Nonnenklöster waren*). Certainly, this failed to happen. A few thousand fellows like you? The world has not produced any more. But ideas don't die. The republic, compared to which Rome and Sparta were nunneries, certainly exists but on the other side of the ocean; and how colossal she grows! "Freedom breeds colossuses" (*Freiheit brütet Kolosse aus*).

In the time that followed I was always invited somewhere on Saturday and Sunday. First by Mrs. Hearst at her magnificent estate near Livermore. Who is Mrs. Hearst? This is not easy to explain to a European. Maybe one gets closest to the truth if one says that she is the university. In Europe the *alma mater* is an ancient idealistic figure; in America, it is a real lady and, more important, with real millions; and she contributes every year to expand the university. Of course, my trip to America was paid for with her money. The president of the university (we would call it rector, but with tenure) is merely the executive officer of the board of trustees which is headed by Mrs. Hearst. The current president demanded many liberties at his nomination in order to be able to do something on his own for the university.

Even worse - but how can I say worse? How could I, who owe so many wonderful hours to the hospitality of Mrs. Hearst, say that such an *alma mater* could be something bad? Well, the situation is even tougher at the Leland Stanford Jr. University in Palo Alto which I visited for one day.

Mr. Leland Stanford Sr. promoted the construction of the First Pacific Railroad, the first continuous connection between the Atlantic and Pacific Ocean. He was influential in Congress and he managed to get the Congress to pay half of the construction costs, for which they would get certain territorial rights, but essentially all the income went to the contractor. Mr. Stanford then started another company with a different name, but which he also headed, to provide all material and manpower to the railroad construction company. Since he was head of both companies, he could easily arrange to have the first buy everything from the second for double the cost. The government nominally payed half, but in fact they payed all, and Stanford kept all the profit.

After becoming enormously rich, his son, to whom he gave everything, died suddenly in an accident. He and, especially, Mrs. Stanford were struck by a kind of religious insanity. In Europe if a rich lady goes crazy she buys herself a dozen cats or a parrot; here, she engages first-rate architects (is there anything you can not get with money?) and builds a university which certainly will be a blessing for future generations.

While Berkeley is built like a pavillion system, Stanford University is laid out in a uniform, architecturally coherent frame which, however, appeared to me to be unsuitable for teaching. The church of the university is particularly beautiful, with grand paintings on walls, ceilings and with stained glass and sculptures. The church organ that was played during my visit sounded so beautiful that the music could easily have made me devout.

After the death of her husband, Mrs. Stanford represented alone the university for a long time. When she died, she made ample provision for the university in her will.

I heard that once a professor of national economics attacked the founding swindle of Stanford. The president, thinking to please Mrs. Stanford, fired the professor immediately; but Mrs. Stanford was noble-minded and she called him back and scolded the president.

It goes without question that at such universities male and female students and faculty have equal rights, but I want to mention one drastic example of the sweeping dominance of the females. One of my faculty colleagues, I remember her name, Miss Lilian Seraphine Hyde, not a bad lady, gave two-hour lectures on preparation of salads and dessert, publicized just like my own lectures. Even today I can present the catalogue of these lectures.

All rooms of the university swarm with women, whose numbers are not smaller than those of the male students. It is particularly striking that in each room a lady's hat is deposited. In the professor's room a lady's hat, in the room which is used for washing, telephoning and something else there is always a lady's hat, in the dark room a lady's hat; yes, when I left somewhat weak and confused after the surgical incident mentioned previously, in my absentmindedness, I almost put on a lady's hat instead of my own.

But back to Mrs. Hearst, the alma mater Berkeleyensis. As I mentioned above, she had invited me to her estate near Livermore, along with some other professors teaching summer school. The estate was a jewel which can be created by luxury, wealth and good taste only in such a lavishly equipped nature. At the station we were greeted by carriages and shortly after we passed a fantastic and not ugly entrance to a park of fabulous trees and flowers. Here, wealth translates into water and where this is provided in California there is an abundance of flowers, which bloom in summer and in winter. After a long ride, though too short for me, we passed through the park, which provided beautiful views of Mount Diablo and Mount Hamilton. Finally we arrived at the mansion. It is built in Portuguese-Mexican style, a wreath of buildings surrounding a court which is closed with a heavy iron gate, apparently some kind of fortress. The center of the court is marked by an ancient marble fountain which was acquired in Verona by the owner herself and transferred to the Pacific coast. The whole estate was named after it 'Hacienda del Pozzo di Verona'.

My companion in the carriage explained to me that the owner engaged a particular German architect named Schweinfurt, who built the estate after studying all the old Spanish and Portuguese buildings in Mexico. I said: "He must have had good taste!", to which my companion commented with, "Yes, he died over it". "How did this happen?" I asked. "He loved Californian wine too much and he

drank until he died." These Californians have a terrible relationship to their wine; but their wine is, indeed, very strong. In the end it was not really too bad. I will also die some day and then stop drinking, so I will continue drinking until I die.

The interior of the Hacienda is a treasure house full of splendid pieces of art and rare objects which the owner acquired from all over the Old and New World, a most original mixture of Greek, Roman, Medieval, Mexican, Chinese, Japanese and Indian artifacts.

At the table I sat on the right side of Mrs. Hearst as I was the only European present. The first dish was blackberries, I said, "No, thank you." Then, there was a melon which the matron had appetizingly salted with her own hands. I said, "No, thank you," again. Then came oat-meal, an indescribable paste of oat flour, with which one might perhaps feed geese; but I am not sure, certainly a Viennese goose would not eat it. But, I noticed the rather disturbed look of alma mater when I refused the melon. This alma mater is proud of her cuisine. I choked it down with an averted face and thanked God that nothing bad happened. This is an unpleasantry of an American invitation. In restaurants you can leave what you cannot eat; but what can you do in the face of a housewife who is proud of American cuisine, in general, and of her own in particular? Fortunately, later there was chicken, fruit, and other things with which I covered the taste of the goose food.

After dinner we went to the music room which was about as large as the Bösendorfer Hall, if I estimated correctly, and what fantastic baroque decoration! It was more beautiful than any small concert hall in Vienna. News about my meager piano playing had already reached the Hacienda and I was asked to open the concert. After some hesitation I took my seat at the grand piano, a Steinway of the most expensive category. Without much expectation I started to play; perhaps my ears had heard a piano with such a beautiful sound in a concert, but never had my fingers touched one. If the stress of my trip to California had still bothered me, it was gone. I played a sonata of Schubert. At the beginning the mechanism was a bit strange, but how easily one gets used to good things! The second part of the first movement went well, and by the second movement I was fully inspired. I didn't play the melody; the melody guided my fingers. I had to force myself not to continue to play the Allegro, and this was good, because here my technique would have declined. After me, a former student of Barth in Berlin played, with as much technique as musical insight. Among the people attending, there was a professor of music from Milwaukee, a martial macho figure, probably an excellent bear hunter; but also thoroughly educated in music. He had also studied piano with Barth; one could not say he had learned it. He knew that Beethoven had composed nine symphonies and that the ninth was the last one. He bestowed undeserved honor on me. During a debate whether music could also be humorous, he asked me to play

the Scherzo of the Ninth Symphony. Could I tell a professor from Milwaukee that I couldn't play it? Here, I also turned to humor and countered: "With pleasure, but I would like to request that you play the kettledrum; it would sound much better with a second person to play it with." After that he kept silent.

At night I slept in a wonderful bedroom connected to a bathroom, with a black man exclusively at my disposal. He also cleaned my boots. Above my bed there was a picture of an angel of ideal beauty. I love art, in particular if it serves an idea at the same time. What purpose has a very beautiful picture of the battle at Abikur in a living room? But an angel on top of a place of rest expresses in some sense the wish of the host that I should sleep well. Yes, I am a bit superstitious. Just at that time I was suffering severely from asthma and I was hesitating to drive to the Hacienda. This guardian angel comforted me and indeed the malice of the asthma was destroyed after one night.

The next day there was no end of discovering curiosities in the house, and in the forests and fields. We drove to a gigantic live oak with enormously wide-spread branches. A large hut was constructed on the top branches of one of them with stairs leading to it, a kind of *Hunding* hut in the second floor. I didn't leave until the afternoon and arrived late at night in Berkeley, so that I could appear on time in the lecture hall next day.

The next Saturday and Sunday were dedicated to the Lick observatory. I started Friday afternoon and drove to the friendly town of San Jose where there are many palm-lined streets. Not only does one walk under palm trees, but one also rides under palm trees in the street car, bicycle and automobile. The next day I started for Mount Hamilton at seven o'clock in the morning, in a slightly defective post carriage. Mount Hamilton is about the altitude of the Semmering, but seems to be higher because the trip starts only a little bit above sea level. The road is good and it ascends slowly and smoothly, turning between vineyards and orchards, and forests and meadows. At this time of the year, there is hay on the meadows. The cows eat hay in summer and fresh grass in winter.

The coachman, a craggy and grumbling old man, is also the post master. Immediately after leaving the inn, the mail in the bags at our feet is sorted out with a lot of complaining. Soon we leave the town behind and arrive outside the gate of a large fenced-in estate. A handsome dog greets us with lively barking. The coachman puts a few letters into a folded newspaper and, without stopping, throws it skillfully right into the dog's mouth, and the dog immediately slips under the fence. This style of mail delivery was repeated at several estates. At others there is a wooden pole with a large nail set up. Without stopping the car, my coachman skillfully removes the outgoing mail and exchanges it with the one to be delivered. Only twice, when baskets of food or other large packages

were sent out, were maids waiting. I couldn't tell their race since I am not enough of an anthropologist. We exchanged horses twice and lunched once (but don't ask me how).

We arrived at the observatory at about 1:30 p.m. Only younger astronomers were present with Dr. Tucker as their leader, because Director Campbell and the more senior ones were preparing to observe a solar eclipse in Spain. Since I was interested in watching the eclipse myself, I asked Dr. Tucker where it could be seen. "In Dacora Ateca Almazan," he answered. I was surprised and said that this sounds like a Spanish village to me. He answered quietly that it is indeed a Spanish village northeast of Madrid. I don't know, but the name made an unfavorable impression to me. Spain started to sound a little weird to me.

After that, they showed me all the devices of this splendidly equipped observatory which could be used very productively because of its location. The most spectacular object is the giant telescope with the 28-inch lens cut by Alvan Clark (they call it simply the *big glass*), with which one of the most interesting astronomical discoveries of modern times was made - the two moons of Mars. Inside the giant pillar which supports the telescope, Citizen Lick is buried. He built the whole observatory with his own money. Isn't that idealism? I understand him. He knew it doesn't matter where his bones finally rest; but he wanted to make a dramatic symbol for what should be the ultimate goal of a millionaire. Indeed! He bought himself immortality for his money.

If I were a poet, I would write a story called "Two Idealists" describing a meeting of Schiller and Lick in Heaven. Schiller would let the wisdom speak to the wealth: I don't need you. Lick would prove the opposite to be true. Certainly the inspiration one gets from money is only a second-rate inspiration; love for money, is less than third rate; but for money one can get a Steinway grand piano, a violin of Amati, a picture of Böcklin and now even immortality.

I want to interject yet another story which connects idealism and moneymaking. The great American physicist Rowland once said in a speech that the scientist should not strive to be rich. A year later he became sick and he learned, after a physical examination, that he would live at most another three years. He had a wife and four children that would be unsupported. In the conflict between duty and his love for his family, his family won. He later invented a typeprinting telegraph and got a patent. He acquired a fortune of 200,000 dollars for his widow to be, which is about a million crowns, and died soon thereafter. He himself violated the principle of his own speech. Dear reader, do you know what I admire most about Rowland? He readily had a profitable invention on hand. May he also shake hands in Heaven with men like Schiller!

Of course, the American business man is strongly realistic in his moneymaking. A very sensible business man, to whom I explained the purpose of my trip, absolutely could not comprehend why I had traveled all the way to San Francisco when my salary would just cover the cost of the travel.

I had meditated before about the pillar which carries the giant telescope and contains the bones of Citizen Lick. Now we walked through the rooms of the observatory. The space is used most effectively. Each portion of the heaven has its own cabinet, and each star has its own drawer. The content of the drawers is rapidly increasing with new observations. It is no wonder that with so much work the astronomers don't get bored, despite the mountain solitude; but it helps that there are also many good-looking female astronomers present.

After having seen Mars, large and glaring through the big telescope in the evening almost like the disc of the moon, we returned to the valley. Here, we experienced a dramatic separation from the sky. We had the firmament above and the fog below stretching like the flat surface of the sea. With a jolt the carriage dived into the fog, the stars instantly disappeared; the light of the car lantern could penetrate ahead only a few steps.

I used the next day (Sunday) for sightseeing in San Jose, but I returned in the early afternoon to Berkeley, in order to have enough time for sleep and preparing the lecture.

No less interesting was the next Sunday's trip to the sea resorts of Monterey, Pacific Grove, and Santa Cruz. In San Francisco I had once driven far out in order to fully enjoy the view of the Pacific Ocean; but now I had the opportunity to admire the rocky shores and the play of the waves over a larger area. In addition, I was interested in a small house in Pacific Grove, where Professor Lōb had his laboratory.

How great is the difference between the giant factories of industry and the modest workshops of science! What imposing colossuses are the ocean steamers! But when one travels frequently one realizes that the naval officers, the machinists and seamen always do the same job. In the passenger rooms, the same people always talk about the same things, relax on the same chairs, and throw the same discs at the same targets. Huge effort, but no new thought! Certainly, in science some things must be done with massive effort (like the Lick observatory); but the really great achievements (of course, our Secretary of Education should not hear this) are usually always made with the smallest means.

It must be great to have commanded over millions for the benefit of a great country, to win battles leading hundreds of thousands. But it seems even greater to discover truth in a most

modest room with most modest tools, truths which will remain to be the foundation of our knowledge when the remembrance of those battles barely remains. What was preserved from all the Greek and Romans today in full freshness and continues on richer and more powerful than ever? The warriors of Marathon have been surpassed at Vionville and Liaojang. The people who read Homer and Sophocles for their own pleasure die away; but the Pythagorean theorem and the Archimedean principle are truly immortal.

Those are my general views; how much they apply to Pacific Grove will show in the future. The discovery made there already brought difficulties for me years ago, when it was still new. Full of ardent zeal I explained it in a social gathering, unsuspecting that something so purely objective could be considered to be indecent, since it had no intention at all to excite feelings of lust, or even was able to do it. Only the sudden somewhat striking departure of the lady next to me at the table made me suspect something. Later the same lady sang a rather dubious song of *Aletter*. I could not suppress my surprise that this was considered decent, while my subject had been considered indecent. Yes, we don't understand your subject, said the lady and, impulsively, I answered: "But you understand the *Aletter*". This is one of our old hypocrisies, to which the prohibition people now wish to add another one. I must make a great effort to explain the object of Lōb's research without being offensive.

For a long time it was thought that all chemical compounds which are characteristic of the living organism, the so-called organic compounds, can only be produced by a special force, the life force. Today we know that numerous organic compounds can be synthesized from their chemical elements by ordinary chemical reactions. But many still believe that life itself is something very special, totally different from the chemical processes and that the special property of life can never be produced from the inanimate. This view is, by far, not yet disproved by Lōb's research, but it goes a long way towards making it seem unreasonable.

As is well known, there exist animal species for which, under certain conditions, the egg of a female individual can evolve without any fertilization (parthenogenesis). Lōb worked with animal species where this doesn't ever happen, with sea-urchins and starfish, and he showed that their eggs, after being treated with inanimate acids, showed the same effect which usually was produced only by the male semen. Moreover these eggs after being exposed under the right conditions to carbon dioxide, butric acid and propylacetic acid developed just as if they had been fertilized in the normal way.

One can appreciate how important this discovery is, that a process which had been viewed till then as the consequence of a special life action can also be initiated by purely chemical reactions, and if the same thing were not only possible for the sea-urchin, but

also for higher forms of life up to humans, then what dramatic social consequences would follow? An emancipation of women for which those presently involved in women's rights could only dream of. The man is simply superfluous. A flask, filled with skillfully prepared chemicals, replaces him completely. Heredity could be controlled much more efficiently than today. At present, it is affected by many accidents. In not too long a time one may find out which mixture produces boys and which girls. Since the former would be completely superfluous, there will be only a few specimens produced for the zoos. Obviously, then, wine will also be superfluous.

From Pacific Grove I drove to the sea resort Santa Cruz which is remarkable for the large number of visitors not living in houses but instead in canvas tents with small windows, which are rented like country condominiums. Others live in small wooden houses built on boats which can be rowed to different places in the shallow bays and rivers which flow into the ocean.

In general, the smallness of the houses, built mostly of wood, is surprising. In Berkeley there are many houses which remind one vividly of the *Schnitzel Farm* in the vicinity of Graz, framed and carved from wooden planks on a small strip of land.

Then, I visited the so-called *big trees* - they are thousands of years old. A cut trunk is displayed, and it can be determined from the rings how long it has lived. I have since forgotten how many thousands of years it was.

The weekdays were devoted to work, but not completely without entertainment. There were many social gatherings, among them a few very formal ones. For one of them, a colleague, who offered to give me a ride, was careful to tell me with typical English foresight that I should wear evening dress. When I arrived I asked: "Am I not beautiful?" But no, oh dear! I had forgotten to clean my shoes. My colleague had a solution. He guided me to a room in the basement, took off jacket, vest and cuffs, found the necessary utensils in a cabinet and personally cleaned my shoes with virtuosity. Then he drank from the same glass from which he had previously dropped water onto the shoe polish. American!

Ladies were not lacking in the social circles. The wives of Berkeley professors were joined by those of visitors, including the innkeeper's wife with her charming daughters (one of them sang beautifully) and other woman friends. Under such circumstances I am frequently stricken, and was also stricken there, by an illness not mentioned before, "Poetitis" (*Dichteritis*). Since I did this already for the other illnesses, I shall try to give here an idea of its level of seriousness and describe one of its products:

To my wife.

Abroad, should I not entertain myself with foreign ladies?
Are they not the ones most similar to you of everything there is?
Quite often I kissed your picture on a paper: Oh please forgive me
that I also kissed your picture if I found it made of flesh and blood!
Besides, I am a theorist from bottom to the top,
and so, believe me, did I only kiss in theory.

So - forgiveness from all sides because of the kissing. It was
nothing else but a poetic necessity. I would like to see the person
who can make a poem by just walking together, conversing, playing
tennis, or playing music.

By the way, in California women are strikingly tall and strong
and they have a tendency to develop a beard. I had to agree with
a colleague who asked: "Don't you think that in America women
have a male touch?" On the other hand, he didn't agree when I
answered with: "And the men a female touch." The latter
statement is only true in so far as the lack of beard is concerned.
In willpower, courage, spirit of enterprise, and strength of character,
they are masculine.

Among the things which were special events during weekdays,
was a visit of the American Secretary of Defense (*Kriegsminister*),
who was traveling to the Phillipines via San Francisco. Supposedly
Mrs. Roosevelt was accompanying him, but I did not see her. The
Secretary visited a public meeting in the big live oak park on the
Berkeley campus. You should have heard the naive bluntness,
adventurous spirit and enthusiasm of the speeches! Just an example:
After a brief speech, the Mayor of Berkeley introduced the Secretary
of Defense with the following words: "This is Mr. Taft! A good
Secretary of Defense, a good citizen and on the whole a good old
fellow." In English it sounds more familiar: *A good old fellow.*

Yes America will do great things. I believe in these people,
despite seeing them at work in the theoretical physics seminar doing
integration and differentiation which was largely out of their line.
They acted about as aptly as I did when I was jumping over ditches
or running down the hills, which one frequently meets on the
Berkeley campus.

Finally, the evening came when I listened to the monotonous
song of the bespectacled waitress for the last time. After I had cut
my last omelette, my colleague sitting next to me surveyed the
number of pieces with a falcon's eye and said: there is half a
minute left for each piece. Then the railroad carried me away, first
to Portland (two nights on the train). I was attracted by an
exhibition, but I continued immediately to Livingstone (again two
nights on the train). The trip was wonderful, if it just could have
been daylight all the time! A most magnificent sight is Mount
Shasta with its snow-covered top and subtropical vegetation. I

passed several lakes, surrounded by mountains, wreathed by forests, compared to which the lakes of Gmunden and Atter seem unimportant. Here, one cannot see a single house on the shores. I don't know whether all of them even have names. I won't say anything about Yellowstone Park. It is a wonder which exists nowhere else in the world. One should read about it in the *Baedeker* or study some good pictures, or best of all, see nature itself if one has the time, the money, and good humor. But one shouldn't do it as I did. Go there at the beginning of June when it is not so hot and spend fourteen days, or better a whole month so that you can look at everything in a leisurely fashion and savor your amazement.

I burdened myself with too many good things. Now I would spend another four nights in the train and I had used up my capacity for enjoyment as well as my clean underwear. And this terrible heat! I always carried a towel in my hand to wipe off my sweat. Fortunately, there are as many as you want available on American trains. Now I understand what a sweat-cloth is. Moreover, the Americans like to seal coaches hermetically, not because they fear air drafts, but because of soot. An observation car at the end of the train, where there is less soot, did not exist on this route. Once I left the window open for some time in my compartment, which was near the engine, and I became so black that I would not be surprised if in the next century a scientist should bring forth a hypothesis that blacks became as black as they are because they were always railroad employees.

Now, the stomach problems came back again. Although one can get wine in the dining car, it is not encouraged except after the meal when most of the guests and, in particular, the ladies were gone. The first thing one gets is a glass of icewater and a sheet of paper where you write down immediately everything you want to eat. Now, it takes an eternity until the order is picked up and you sit besides the icewater with a palate drying from heat. I yielded to the temptation (angels would have yielded) and drank the poison.

All of a sudden I didn't get any wine at all! The explanation was that the entire state of North Dakota abstains and while the train was traveling through North Dakota no wine would be served. I protested: What do I care about the state of North Dakota! I want nothing other than to go to Vienna. As far as I am concerned, you could drive me through the land where pepper is growing! Oh, a lot of pepper is grown here, was the answer. The devil! Here they invalidate even our strongest curses. Of course, for some extra money I got wine after all; but the money was paid secretly and nothing showed up on the bill.

Usually, American railroad companies only add a new coach if all others are filled; nevertheless the trains are enormously long. The individual coaches have names like ships, otherwise one would get

lost completely. I traveled, in turn, in the coaches Saint Jesabel, Pembina and Vernal. They are crowded with people of all nationalities and races, the passengers were often ruffled and partly dressed because of the great heat. A baby was usually lying naked on a velvet fauteuil which reminded me of pictures of the Christ Child, who surely was not lying in a Pullman car. I wanted to mention this as flattery to the mother, but how ugly everything sounds in English: *as de tscheild tschises kreist!* (as the child Jesus Christ).

Fortunately, I was not born an Englishman. I would never have taken home a bride. One can imagine that I would have been embarrassed at the declaration of love in English. "He looks as if he must enter the lecture hall" (*Der schaut drein, als müsst' er in den Hörsaal hinein*), Mephistopheles said. Yes, if entering the lecture hall would have been all there was, if nobody other than *Frau* Physics and Metaphysics would have stood in front of me - but in front of me stood a lovely young lady. And talking was very uncomfortable; but when I reached the essential point (*punktum saliens*), the wisdom and good taste of my great-great-ancestors helped, who discovered for the supreme feeling the most harmonious word, the word love. Like music at the Steinway grand piano, I didn't control the speech, the speech grabbed me and I was entirely successful. But if I would have had to say with a truly English pronunciation: "Ei lowff ju" (I love you), my chosen one would have run away, like chickens from a luring, goitrous man from Styria who wants to catch them.

In the evening, the entire crowd of travelers had to be urged to go to bed. The setup of the American sleeping cars is as follows: A rather narrow corridor goes down the middle of the car. There are upholstered benches on either side where two persons can sit. Each traveler is assigned one of those benches. In the evening, the area above the benches, which always face each other, are changed into two beds one above the other, isolated from the corridor by curtains. The beds are parallel to the direction of travel. One can probably also get two of these beds - a whole compartment - but for twice the cost. Since there are no drawers, one has to pack night gown, slippers and other needed things into the handbag, which the porter places on the bed. Then you have to undress behind the curtain, store your clothes and the handbag in the bed and then sleep without suffocating.

Each compartment has a small opening to the outside covered with a fine-meshed screen and it becomes so damp in hot weather that I often slept in the costume of the previously mentioned baby, which saved me the trouble of unpacking the night-things. Once I left the window open the whole night, but then the porter commented to me when I got up: Mister (*Herr Kollege!*)

In order not to lose watch, wallet, spectacles and so forth, I first tried putting my hat into the wide-meshed net which was the only container and then put all these small things into the hat. But when the porter prepared the beds he always hung up the hat high beyond reach. It was funny to see how puzzled he was that I needed the hat in the bed.

The most critical time comes when benches are transformed into beds. One can no longer sit on the benches, and the bed is not yet ready. I usually escaped into the washroom where, however, I would find a passenger brushing clouds of dusts from his clothes, or another one splashing water in all directions while washing himself. If I tried to reach the saloon car which is missing in many trains, I would have to pass the corridors of seven or eight cars, all isolated with bed curtains on both sides. They are alive, and from their secret places you get pushed by an arm, a foot, or a soft object. In addition, one continuously stumbles over the protruding pieces of luggage. Finally, I might find room in a compartment which still has intact benches. But the other side of the corridor would already be beds, the curtain in continuous movement. There is something to the 'eternal female' (*ewig Weibliche*). Signing the students' books during my lecture in Vienna I see only their hands, but I immediately recognize every female hand. So, I was also convinced that this curtain covered female limbs and soon it rose through a careless movement during undressing, and I saw that I was right.

By getting up early, I escaped many inconveniences in the morning hours. So I was alone dressing and washing, repeating the words from Mozart's *Abduction from the Seraglio*, quoted by Bismarck, "To deceive me, you have to get up early" (*Mich zu hintergeh'n, müsst ihr früh aufsteh'n*) to the people who later crowded into the washroom.

Finally, I got so tired of traveling because of the heat and the soot, the stomach problems and the thirst, that I not only dispensed with the solar eclipse, but I also tried to make a connection to the *Kaiser Wilhelm II* which would bring me home the quickest possible way. But, there, a strike of the telegraph operators had just begun, causing a delay of six hours. I got angry about it; but now, one should have seen the lack of concern displayed by Americans! They look at a raging person almost pitifully, as if they want to say, "the poor man thinks this might help in some way." In my case the conductor simply said: "We don't want to risk a collision."

In Chicago I had only twelve minutes to get from the Union Station at Canal Street to the Nickelplate Station. Loaded with luggage, I rushed around at random. Two people whom I asked for directions didn't answer. Then, a young lady noticed and asked me kindly what I wanted. Although she couldn't tell me directions either, maybe she didn't even understand my question, she pointed to a police officer, whom I had overlooked in my excitement despite his

great height. When I exclaimed to her deep from my heart: "You are an angel", I noticed that she was exactly like the angel from Pozzo di Verona. Was the belief in a guardian angel not just a fairy-tale? And how does the atmosphere of a fairy-tale fit into the halls of the Union Station? Well, then, away from the guardian angel to the police officer, who quickly gave me directions, and I arrived in time for my train at the other station.

In New York I had still another surprise. The nice pier, which led from the railroad to the boat shuttle had burned down and I had to stumble over charred pieces of wood, loaded down with my luggage.

In spite of all obstacles, I reached the Kaiser Wilhelm II in time. After I was on board, together with all the large and small pieces of my luggage, how joyfully my heart was beating!

"Let us start a joyful singing,
Since the ship has turned its bow
To the father's hearth and bringing
Us back to the homeland now."

The trip back was favored by the most splendid weather. The good food on the ship also completely restored my stomach. I drank not a drop of water, also not much beer, but all the more of the noble *Rüdesheimer*. On the ship this is easily done; if one wobbles a little, everybody ascribes it to the movement of the ship.

Now just the tiny railroad trip from Bremen to Vienna, a dashing ride in a Viennese fiacre and I am finally at home. Yes, such a journey offers many interesting and grand things: California is beautiful, Mount Shasta magnificent, Yellowstone Park wonderful; but, by far, the nicest part of the entire journey is the moment when one is back home again.

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