GERMAN BRACE AND LIMB SHOPS

Report of a Visit in the Spring of 1953

by LAURENCE PORTEN

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We sailed from New York on the "Queen Elizabeth," April 22. My party consisted of my wife, two daughters and one grandchild, also, my very good friend, Mr. Otto Becker and family from Detroit.

Laurence Porten

In five days of quiet sailing, excellent meals, and good rest, the ship drew closer to our destination, Cherbourg, France.

In Paris, we spent three days sightseeing the famous places. On May 1st, we started out early to avoid heavy city traffic, but in every street there were people assembling for the labor holiday. We passed through Choullomiers, Sezanne, Vitry Le France, St. Dizier, Toul and Nancy, then Luneville, Badonviller, Alarmont, Shirmeck, Molsheim and Strasbourg. (Many of these towns and places I had seen in the first World War and it was a thrill to visit them after more than thirty years.) We crossed the Rhine River to Offenburg in Germany. The following day we travelled to Baden-Baden, and on the *Auto Bahn* to Stuttgart-Ulm and Augsburg. After an overnight stay, we continued to Munich and our old home in the outskirts, where we visited old friends in the city and I then spent most of my time in the various limb shops. Munich, as well as the other German towns we had seen, had been bombed terrifically during the war and the people are working hard to restore the buildings and housing facilities.

On May 8th, we started our journey across the Alps to Austria and Italy. The winding steep mountain roads led us to Innsbruck, the famous Austrian alpine town. Soon our car was climbing up again, ascending to 7,000 feet and more up the mountain sides —through snow and roads just wide enough for our big Oldsmobile.

A Walking Machine

On May 14th, we were on our way to Telfs, Fernpass, Lermoos, Garmisch and Oberau where I visited Mr. Schmid who is quite famous in Germany for making orthopedic machinery. He has built a new walking machine for any fitting room with little space, that makes the parallel bars obsolete. This is a conveyor belt about 8 ft. long, 2½ ft. wide, less than 1 inch high and weighing about 400 lbs. The patient steps on it, fastens the overhead harness and starts with a slow speed. At his own command, he increases or decreases the speed. I have seen it in use and have ordered some for my own fitting rooms and shop. I will introduce it in America and act as the distributor. Mr. Schmid also makes belt sanding machines, wood socket cutting and grinding machines which make hand cutters obsolete, and finishing machines with dust suction spindle.

The Habermann Shop

I paid a visit to one of the great orthopedic mechanics of Germany, Mr. Habermann, who is famous for his Schede Habermann physiological knee joint as well as other improvements in alignment, etc. Having known him since 1922, when I studied

his technique for six weeks at his plant in Munich, we had a very interesting afternoon together and he demonstrated to me his newest findings in alignment. I believe he has very good points in saving labor. He also copies the stump shape and measurements from a plaster cast. Mr. Habermann's shop is crowded but impressive, and he plans to build a new plant.

Later on, I visited Mr. Feierabend, who is the Chairman of the Professional Organization in Bavaria and Munich. He, too, is an old friend and acquaintance of mine. In 1929, we were sent by the government to London to study the Desoutter metal limbs which he introduced in Germany. He is a very skillful orthopedic mechanic who has various patents on leg and arm parts. At present, he is working on a new mechanical metal hand.

I visited several other shops to check on their manufacturing and fitting methods. Most of the Munich limb shops have been bombed out during the war, therefore, they are still suffering from lack of adequate rooms, buildings, tools, machines and most of all, materials. However, they all work hard to overcome these handicaps and are very confident that they will again be on the top soon.

On May 16th, I drove to Endorf, which is a small town near Roseheim. Mr. Kleinekathoefer, who is the inventor and manufacturer as well of the well known wing bearing knee brake, which they use all over Germany, maintains a small but modern factory near his country home. I have used his "knees" for some time now.

The Sportsanitarium

On May 20, I started out for the *Sportsanitarium* in Isny, Allgaeu which has the most modern gait training school in Germany. It was recommended to me by the Germany National Limb Makers Association, and I already had heard a great deal about the excellent results. This modern sanitarium was financed and built by the War Veterans' Organization with donations from the government and private funds. Located in a wooded area, it is ideally suited for the purpose and is under the direction of Karl Sell, M.D., and Specialist for Orthopedics. His administrator is a war veteran who really is the creator and brain behind the whole thing, and actually started the Sanitarium on "one leg" as an above-knee amputee. He is the most famous one-legged skier in the Alps and pictures of him have been shown in American theaters. Dr. Sell gave me some demonstrations of his new technique in walking training with below and above-knee amputations, and has entirely new ways, more or less unknown to American teaching. It is my opinion that it will revolutionize physiotherapy as far as amputees are concerned. His new ideas and findings will be published in a book on which he is now working and I hope it will benefit our rehabilitation centers a great deal.

Dr. Sell and his administrator asked me to extend an invitation to all interested Americans, doctors, physiotherapists and limb makers to visit this Sanitarium and they hope some day American amputees will join the others in an international spirit of brotherhood. I must not forget to mention that the Sanitarium itself has bedrooms, beds, windows, bathrooms, toilets and dining rooms which are entirely designed to help the leg and arm amputee and to make them independent. Simple and most modern gadgets are everywhere, and our architects who build hospitals could learn a lot in Isny.

I travelled north again towards Tuttlingen which is well known for the surgical instruments and orthopedic joints. I had a long conference with Mr. Link and Son, exchanging views and ideas concerning our problems in the Orthopedic fields.

Visit with the German Association

Prior to leaving America, I had received an invitation to attend the Annual Convention of the German Limb and Brace Makers Association as a special guest. I was scheduled to speak on May 22nd about Orthopedics in America. I was given a half hour speaking time, but when I stopped, the audience and the Chairman urged me to go on and at the end of about an hour and 15 minutes, I received such an ovation that it left me speechless. After the lunch recess, the Chairman announced that the Association had decided to award me an honorary Life Membership in the Germon Orthopedic Association.

The Convention ended after three days. I met so many of my old friends and colleagues from 20 and more years back, that with deep sincerity, I enjoyed every minute of it and would not have missed it for anything in the world.

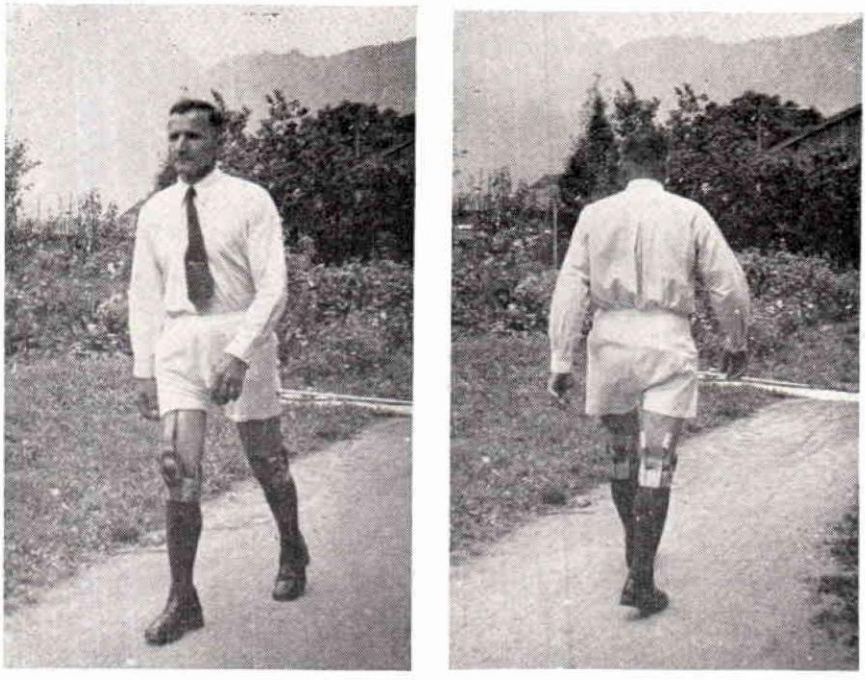
Of course, I did not forget to extend greetings from the OALMA and friends. I also told the Convention about the success and respect we have earned in America as a professional organzation, and how hard we have been working the last six years to achieve our goal. I described our rehabilitation system, the Veterans Administration Program, the various charity funds, the Research Institutions like the Mellon Institute, the U.C.L.A. in Los Angeles, Berkeley, the Veterans Administration Laboratories, the Army and Navy hospitals research programs and over-all guidance by the Committee on Artificial Limbs, National Research Council. I quoted statistical figures and outlined our American way of making and fitting artificial limbs and braces.

I assured the Convention that the OALMA, as well as all the aforementioned institutions would be glad to exchange ideas and practical experiences with the German organization or members, and I presented the Chair with all the American printed research material which was given to me by the various institutions. I am taking this opportunity in the name of the German convention to thank everyone involved for these donations which were given in an international spirit of brotherhood and mankind.

The evening was followed by the customary banquet in the Kurhaus; this was an affair of warm humor, gaiety, dancing and cheerful spirit. Since Durkheim is a famous wine town with many wineries, free donations of their products to the Convention helped to raise the "spirit." The town honored the Association Committee with special made wine glasses which bear the town's insignia and coat of arms and I also received one as "honor guest" from America.

After the Convention I stopped only in Mannheim and Heidelberg, then headed back to Munich to meet my family. On May 28th, we had our car packed for the big journey to Switzerland and we took the beautiful and scenic mountain road via Immenstadt. We crossed the Swiss border and proceeded via Schaffhausen to Bern. While my womenfolk could not resist the urge to go shopping, I made a trip to Lauterbrunnen, Murren and Kleine Scheidegg by auto and indulged in the sublime view of the Grandoise Jungfrau, Eiger and Monch and other famous peaks. Some of these peaks I had climbed in my youth, with ice ax, rope and skis, but now, I had to be satisfied to look at them and dream.

We continued our voyage toward Kufstein in Tyrol where I had an appointment with Fritz Striede, the famous Austrian Orthopedist. Actually, he is a German by birth and received his training in Germany. He made improvements on existing prosthetic appliances and had several patents which made him known in Germany



The Striede Artificial Limb.

and Austria. His advice was sought in Vienna and Innsbruck and the Austrian Government invited him to establish a shop. He selected Kufstein in Tyrol, a small mountain resort, where he is now beginning to develop his shop into factory lines. His spreading establishment will soon have all facilities to house his patients in private rooms or wards, to have house physicians and physio-therapists, Turkish baths, massage rooms, swimming pool, recreation rooms and gardens. Momentarily, he has 58 workmen to help him make the artificial legs and parts which are shipped to limb shops all over Austria and other countries in Europe.

As a bachelor, he spends every minute of his life in his shop and among his amputees and his present dream is to have his own research laboratory and start a school where specialists can be trained and research work continued.

The Striede Knee

The Striede Knee itself imitates nature as close as possible because it had no fixed axes or bolts. The connection is between the proximal and the distal end of the femur. These parts are covered or made with synthetic resin and the cartilages are of greased leather. The movements of the Striede knee are distinctly different from that of the Conventional Knee bolt legs and quite similar to the natural leg. Therefore, it is hard to detect which leg is amputated.

As a means of attachment to the leg to the stump, Striede uses a method similar to the Suction Socket. However, he does not depend at all on suction, but uses a slight muscular contraction which is sufficient to hold and control the leg. It also exercises the muscles in the stump and prevents atrophy. The fitting of the socket to the contracted muscles requires a par-

ticular shaped socket, the high front edge leading into a trough-shaped segment, which allows room for the adductor on the medial side. The tuberosity part is shaped and cut out to allow a weight bearing on the lateral side of the ischium, thus using the muscles and sinews to reduce the the impact of the artificial leg on the tuber and to contribute to soft natural walking. (Moving the weight bearing aspect to the lateral side of the ischium will also aid in a better alignment of the leg). The artificial foot is a combination of wood and rubber, designed by Striede, without metal ankle joint, and follows also the natural pattern of a human foot by giving a remarkably firm stance. This foot is used in A.K. and B.K. legs alike and adds to the natural gait of the Striede Knee.

When Striede showed me his fitting room, it was well filled with about 30 patients. However, the unusual part of it is that they consisted of men, women and a few youngsters, all these being amputees of some sort or other. Bilateral A.K.'s and B.K.'s with suction sockets and they all sat or walked there in this big room, talking in different languages. He introduced me to an international flock, proving that his customers are coming from all over Europe and some from Asia and North and South America. His theory is not to separate the sexes but let all these amputees train and walk together, just as soon as they are fitted with legs and have a desire to join the crowd in the big fitting room. They watch, criticize and help each other and will benefit from that. Without his intention, his institute has become a matrimonial agency because about 50 marriages so far have taken place between his patients.

After showing me all his work in detail and outlining his plans for the future, he asked me to act as his distributor in America, which I accepted. I can see a great future for the Striede Knee in America and wish every limb shop can stock the parts and use it, thus giving the benefit to all amputees.

After this remarkable visit, we left for Munich and arrived at our temporary home again. The last few days we spent among friends and relatives and preparing for our departure.

On June 11th, at 6:00 P.M. we again boarded "The Queen Elizabeth", and the usual routine for the five days-crossing began.

Summary

Summarizing my experience in Germany, in regards to the orthopedic field, I have seen many interesting things which should be worth exploring. I have stopped in many limb and brace shops which are still suffering from the lack of material, machinery and skilled workers, due to the war damages.

However, I have also found the will to come back and to improve and create things and to help the fellow man. Many shops have most modern machines and equipment (much better than what we have in America). Others are still in a primitive state. Artificial limbs and braces are of a better design and fit, and suction legs are predominant. In artificial arms, we have an edge, however, every effort is made to improve.

The Limb and Bracemaker Association is eager and willing to cooperate with our American Association in every way possible and the "Latch String" is out for every visitor in Germany.

WESTERN SCHOOL UNDERWAY

by C. O. ANDERSON

President, Prosthetic Services of San Francisco

Region X's class in Anatomy poses for a picture with the class skeleton.

Region Ten, or more properly, the Western Orthopedic & Prosthetic Appliance Institute is sponsoring a new kind of school. For the past several months, shop owners and the certified orthotists and prosthetists of the San Francisco Bay area have been meeting together weekly to take instruction in matters related to appliance making. There has been an almost 100% cooperation among the various shops and a fine attendance record.

Instructors for the classes are the doctors of Western Orthopedic Association who are donating their time and services. A committee headed by Dr. Chas. O. Bechtol has been appointed by that organization to insure cooperation. Others on the committee are Drs. Douglas Dickson, Don King, Neil P. McCloy, E. R. Schottstaedt, Brett Smart, Calvin K. Terwilliger, Douglas D. Tofflemier.

Emphasis is heavy on the study of anatomy and on the pathological conditions encountered by orthotist and prosthetist. Owners and certified men are acting as *shakedown crew* for the establishing of a curriculum and course of study. It is expected that this phase will have been completed in six months more and the course will be extended to journeymen and workers who are not certified. Eventually the same instruction will be set up for apprentices.

The class now meets under the auspices of the Oakland City School System which furnishes quarters and other items. A committee from the industry composed of Ned Snygg, Matt Laurence, Mori Morris, Herbert Hart and C. O. Anderson act as a trade advisory committee. The last named also acts as moderator for the class.