Cosmotron, in a hydrogen diffusion cloud chamber (see chapters by William Fowler and William Chinowsky in this volume). The properties of these chambers were well suited to the discovery of the particles, and of their production mode, respectively, but not for systematic studies of their properties. I should add also that on the theoretical side, Abraham Pais had predicted the phenomenon of associated production, and Murray Gell-Mann had invented the strangeness rules that tied the few available experimental facts together, and that predicted many of the reactions we would later observe, a good fraction of them for the first time (see chapters by Pais and Gell-Mann in this volume).

As soon as I returned to Berkeley, my colleagues, Lynn Stevenson and Frank Crawford, started to repeat Glaser's experiments, with the explicit aim of seeing tracks in liquid hydrogen. They fired up two technicians in the synchrotron shop, where all were working, and these two men, John Wood and A.J. (Pete) Schwemin, collaborated in building the first hydrogen chamber to show tracks. Wood sent his letter to the Editor of *Physical Review*, with pictures of his first tracks. (Actually, I ghost-wrote the letter, since John had never published anything before.) John's pictures showed an unexpected effect that was the key to the successful operation of large bubble chambers. One could see bubbles forming at the glass walls, while sharp tracks were forming in the central region. This was contrary to Glaser's feeling that bubble chambers had to have such clean, smooth walls, that bubbles wouldn't form there, but only on the tracks. As soon as I pointed out the importance of John's discovery, Schwemin, together with Doug Parmentier, started to build a 2-inch diameter metal chamber with gasketted glass windows — the first purposely "dirty bubble chamber." They had it working very quickly, and at Schwemin's request, I ghost-wrote their article for the *Review of Scientific Instruments.* Schwemin and Parmentier then built a 4-inch diameter chamber, which was the first bubble chamber of any kind to be fitted with a magnetic field, and which saw its first V-particles in a short exposure to a negative pion beam at the Bevatron.

We now felt we were on the right track, and enlisted the help of Dick Blumberg, a mechanical engineer, to design a 10-inch diameter hydrogen chamber, to fit in the well of a