CHEMICAL HERITAGE FOUNDATION

ARNOLD FRANKEL

Transcript of an Interview
Conducted by

Arnold Thackray

at

New York, New York

on

13 March and 27 March 1998

(With Subsequent Corrections and Additions)

Arnold Frankel

CHEMICAL HERITAGE FOUNDATION
Oral History Program
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Chemical Heritage Foundation
Oral History Program
315 Chestnut Street
hiladelphia, Pennsylvania 19106

ARNOLD FRANKEL

1922	Born in New York, New York on 17 March

Education

1942	B.Ch.E., chemical engineering, City College
1949	M.Ch.E., chemical engineering, Polytechnic University
1943-1945	Graduate courses, University of Pennsylvania

Professional Experience

1942-1943	Operating engineer, U.S. Rubber Company
1943-1947	Research & Development, Publicker Industries
1947-1997	Co-founder, Chairman, Aceto Chemical Company, Inc.

Honors

1980	Human Relations Award, American Jewish Committee

ABSTRACT

Arnold Frankel begins the first interview with a discussion of his family background. His father emigrated from Poland to New York in 1907. Though he was a sign painter, he believed in the importance of education. Frankel spent most of his childhood in the Bronx; because of the Depression, the family moved frequently, but remained in the same area. Frankel attended City College, enrolling in the chemical engineering curriculum and receiving his B.S. in 1942. While at City College, he met Seymour Mann, who later became his business partner. After graduation, Frankel accepted a position with the U.S. Rubber Company, working at a TNT plant. Soon thereafter, he moved to Publicker Industries, where he did pilot plant work. He also encouraged Mann to join Publicker. Frankel and Mann began to discuss forming their own business, and planned to manufacture 2,4-D and antifreeze. Though they later discarded that idea, they did form Aceto Chemical, Inc., and exported a variety of chemicals. Frankel is joined in the second interview by his wife, Miriam Frankel, and they discuss the difficulties of beginning a business and a family at the same time.

INTERVIEWER

Arnold Thackray is president of the Chemical Heritage Foundation. Educated in England, he was a fellow of Churchill College, Cambridge. He served on the faculty of the University of Pennsylvania for more than a quarter of a century. There, he was the founding chairman of the Department of History and Sociology of Science, where he is the Joseph Priestley Professor Emeritus. In 1983, he received the Dexter Award from the American Chemical Society for outstanding contributions to the history of chemistry. His publications include *Gentlemen of Science* and *Chemistry in America.*

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INTERVIEWER: Arnold Thackray

INTERVIEWEE: Arnold Frankel

LOCATION: New York, New York

DATE: 13 March 1998

THACKRAY: Arnold, can you begin by telling me a little bit about your parents?

FRANKEL: Sure. My father was born in Poland. He came to this country in 1907 and he married my mother in 1921. She was a secretary.

THACKRAY: What age was your father when he came over here, do you know?

FRANKEL: Let's see, 1907. He was born in 1883, so seventeen and seven—twenty-four.

THACKRAY: Was he on his own? Did he come with a group of other people?

FRANKEL: On his own.

THACKRAY: Did he come to New York?

FRANKEL: Yes.

THACKRAY: What did he do initially?

FRANKEL: He was a sign painter.

THACKRAY: He was a sign painter. He continued in that, did he?

FRANKEL: Oh, yes.

THACKRAY: Was your mother an immigrant as well?

FRANKEL: No. She was born in New York City. Her mother and father were immigrants. Her father was a tailor.

THACKRAY: Where did they live? Did you have brothers and sisters?

FRANKEL: Two younger sisters.

THACKRAY: All right. You were the first child, then.

FRANKEL: Right.

THACKRAY: Where was the family living when you were born?

FRANKEL: In the Bronx.

THACKRAY: In an apartment?

FRANKEL: In a small apartment.

THACKRAY: How much younger are your sisters?

FRANKEL: One is four years younger, and the other one is five and a half years younger.

THACKRAY: What have their lives been? Have they been housewives or have they had careers, or anything else?

FRANKEL: Well, my youngest sister has a Ph.D. in chemistry from [University of] Rochester. She lives in California now. She took a leave of absence for ten years to raise her kids. That sort of put her in the category of no experience, so she had trouble getting a research job, which is what she wanted. She got her masters degree in library science and became a research librarian, but she wanted to do real research. She had problems with that. After several years as a research librarian and teaching library science, she retired. Her husband's a professor of biochemistry at USC.

THACKRAY: All right. What about your other sister?

FRANKEL: She was a librarian. She moved upstate thirty years ago. She's unmarried. She lives in Pottsdam, New York. She worked for the state university [State University of New York] in Pottsdam. She too is retired; she retired, oh, ten or fifteen years ago.

THACKRAY: Your father, although a sign painter, had three very educated children. Why was that?

FRANKEL: It was his desire for them to go to college.

THACKRAY: Can you talk a little about your childhood? I'm interested in your early childhood memories of your home and family and life in New York.

FRANKEL: Yes. We lived in very modest apartments. We moved I guess frequently, always in the Bronx. Then when my father had better times, we ended up moving to a brand-new elevator apartment. When the Depression came, we sought to reduce the rent and we moved to a walk-up. We lived there for—oh, I guess until I went to college.

THACKRAY: In a walk-up, the question is, what floor you're on.

FRANKEL: We were on the third floor.

THACKRAY: You got used to climbing stairs, I'm sure.

FRANKEL: Of course, it didn't matter very much at the time. I have to tell you about my illness. I have MS. One of the advanced symptoms is the inability to talk really clearly. I've had this MS for twenty-two years, but it's affected me minimally. There was no speech involvement and I had no problem with walking—until the last year. I officially retired in June of last year. My executive vice president retired the year before I did, even though he was fourteen years younger than I was. [laughter] My thoughts were, "I'll never retire." Then I got to a point where I couldn't really function as I would like to. We took the number-three person and made him president and CEO and chairman, which he is right now. He is doing a pretty good job.

THACKRAY: Well, that's good to see the company moving forward.

FRANKEL: Oh, yes.

THACKRAY: We'll just go on until we've done enough. Then we'll come back and do some more sessions, and take it slowly.

FRANKEL: Well, I think I delivered a couple of papers in the past on Aceto (1). I'll give those to you.

THACKRAY: Thank you. Can I take you back to the decision to go to City College? Was that just a natural, obvious thing? How did you make the decision to go there?

FRANKEL: Well, City College was tuition free. You'd either go to City College or some other city university like Brooklyn College, but the only one that had a chemical engineering background—not background, curriculum—was City College.

THACKRAY: What prompted you to choose chemical engineering as a major? Where did the idea for this come from?

FRANKEL: You had to pick something, right? I was interested in chemistry since I was a kid. I had a chemistry set. Chemical engineering sounded better to me than straight chemistry—rightly or wrongly. [laughter] That was it.

THACKRAY: When you went to City College and started pursuing chemical engineering, was there quite a large class of students in that specialty?

FRANKEL: No. I think there were about twenty-five the first semester.

THACKRAY: Did you like it?

FRANKEL: Well, I suppose that's true, sure. [laughter]

THACKRAY: In which year did you actually start at City College?

FRANKEL: In 1938.

THACKRAY: In 1938. You went through the four-year curriculum there, then.

FRANKEL: Yes.

THACKRAY: The Depression was still very much in evidence at those times.

FRANKEL: Well, it persisted from the 1930s to the U.S. entrance into World War II.

THACKRAY: I believe you had a partner in Aceto, Seymour Mann. Did you meet him at City College? Were you taking courses together?

FRANKEL: Yes.

THACKRAY: What sort of person was Mann? Isn't that a Jewish name? Was he also Jewish?

FRANKEL: He was Jewish, yes.

THACKRAY: Yes. He didn't have family who were in chemical engineering either, so he was in the same situation as yourself.

FRANKEL: That's right.

THACKRAY: All right. By the time you got out of City College, Pearl Harbor had just been attacked.

FRANKEL: That's right.

THACKRAY: Where did you go to work after college? What were your plans and thoughts?

FRANKEL: Well, my first thought was to get a job, any job. I took a job with a TNT [trinitrotoluene] plant.

THACKRAY: Where would this have been?

FRANKEL: In Williamsport, Pennsylvania, with the U.S. Rubber Company. They were preparing a new plant.

THACKRAY: Preparing, in what sense?

FRANKEL: It was under construction at the time. I was there about a year. I was assigned to focus on plant operations.

THACKRAY: What exactly did your position entail? You were an operating engineer on the plant. Were you on shift work?

FRANKEL: Yes. Before that, we had to spend a month training at another TNT plant, which was in Kankakee, Illinois, about thirty miles south of Chicago.

THACKRAY: I understand you were there about a month.

FRANKEL: In Kankakee, yes.

THACKRAY: It sounds like an exciting place. [laughter]

FRANKEL: Well, then I looked for something more in line with research and engineering. I got a job with Publicker Industries in Philadelphia.

THACKRAY: Yes. What did your job entail? What were you hired to do there?

FRANKEL: I was in the pilot plant—or, I should say, an R&D unit. I did several things. Publicker was in the alcohol business primarily. They were making various byproducts—derivatives—of alcohol. They had the idea of making butadiene, which has led to the synthetic rubber program. They were building a plant in Eddington. I think they made one tankcar.

THACKRAY: One tankcar of butadiene.

FRANKEL: Yes. The problem was, they had a very inefficient process. Before they went into Eddington, they had test results. They had assumed—they hoped—that the Eddington plant would be more efficient. It turned out to be less efficient, so that sort of ended.

THACKRAY: You were doing pilot plant work around the questions with this other plant they were trying to build and get operating. It must have been pretty frustrating for everyone, wasn't it?

FRANKEL: [laughter] Yes.

THACKRAY: How long did you stay with Publicker?

FRANKEL: Two years.

THACKRAY: This is when you were also doing some graduate work at Penn, was it not? Were you doing that in the evenings? How did that work?

FRANKEL: Evenings and Saturdays.

THACKRAY: That was masters course work in chemical engineering, was it?

FRANKEL: Yes. How do you know about that?

THACKRAY: [laughter] We have our sources. That's what historians do.

FRANKEL: I didn't think it was published anyplace.

THACKRAY: [laughter] I have a research file. That's what we always do in relation to an oral history, to help the interviewer know what things to ask about. Were you living just in an apartment as a bachelor in Philadelphia at that time?

FRANKEL: Actually, I shared an apartment with Seymour Mann.

THACKRAY: He was at Publicker as well?

FRANKEL: Yes. He had another job down south. He was looking for something else, and he applied to Publicker.

THACKRAY: This was after you'd gone there? Who got there first?

FRANKEL: I did.

THACKRAY: You'd stayed in touch with him after graduating. You were friends, then?

FRANKEL: Right.

THACKRAY: Did you get to Publicker by answering an advertisement, or did you learn about the position by some other route?

FRANKEL: I think that it was through the Pennsylvania state employment services. Philadelphia didn't seem like a bad place. There was an opportunity there. I could also have gone to the Chemical Warfare Department of the federal government in New Jersey.

MIRIAM FRANKEL: I found your fiftieth anniversary speech (2).

FRANKEL: Good, good.

[END OF TAPE, SIDE 1]

THACKRAY: You encouraged Seymour Mann to come up to think about applying for a job at Publicker. Then you were sharing an apartment together and chasing all the girls in town, probably.

FRANKEL: Right. [laughter]

THACKRAY: You were still there at Publicker when the War ended, were you not? Then you stayed there for a while after the War. Did the War's end have much effect on what Publicker was doing?

FRANKEL: Well, Publicker was making all these chemicals outside of butadiene. They made acetic acid, and of course ethanol, and butyl alcohol, acetone, and butyl acetate.

THACKRAY: Were you operating plants, or were you in pilot plant work all this time?

FRANKEL: Pilot plants.

THACKRAY: That was a little bit more interesting, I would imagine.

FRANKEL: I was in the pilot plant, in the research lab where they were developing a solvent called mesityl oxide. It's a solvent.

THACKRAY: You were doing pilot plant studies on its manufacture?

FRANKEL: Pilot plant studies. Actually it wasn't a pilot plant. It was a research lab.

THACKRAY: Was Seymour Mann doing something very similar?

FRANKEL: Yes.

THACKRAY: Why didn't you stay in Philadelphia, then, and live happily ever after, as it were?

FRANKEL: That's a good question. I think we were discouraged by the failure of the butadiene process.

THACKRAY: When did you first begin to talk together about going into business for yourselves? Was this something you'd discussed for a long time? How did that evolve?

FRANKEL: Well, I referred to those things in one of those speeches. We had planned to make antifreeze and 2,4-D in a storefront.

THACKRAY: Why did you pick those two entities?

FRANKEL: They would both be easy to make. 2,4-D was a reaction of monochloracetic acid and dichlorphenol.

THACKRAY: Very good. You thought there would be a market for these?

FRANKEL: Yes. All they'd give us was one hundred pounds of monochloracetic acid and dichlorphenol. This was at a time when chemicals were very tight and unless you had an allocation, you couldn't get them. Of course, you couldn't get an allocation without a history. We gave that up after a while. The other thing was antifreeze, which is really a glycol plus some water. If you read those papers, that was really pre-Aceto Chemical. We called it Aceto Chemical, but this part had a short history and was prior to our incorporation.

THACKRAY: When you were thinking of producing 2,4-D and the glycol, had you actually left Publicker? Were you still at Publicker thinking about it, and then realizing you couldn't do it?

FRANKEL: Yes, I guess we left Publicker. The plan to manufacture was abandoned after a while. Then we started Aceto Chemical Company, Inc.

THACKRAY: I would like to return to that first venture, the 2,4-D and the glycol. Had you come back to New York to try to do that?

FRANKEL: Yes.

THACKRAY: Had you got a different company name at that time?

FRANKEL: Same name, Aceto. It just wasn't incorporated. We thought we'd use a washing machine as a reactor. [laughter] It was wild.

THACKRAY: You were just living off your own savings, were you, initially?

FRANKEL: No. I had another job.

THACKRAY: In New York? With whom? Was this a chemical job?

FRANKEL: Oh, I had a job with Irvington Varnish and Insulator Company in Irvington, New Jersey. They were eventually acquired by 3M.

THACKRAY: It sounds as if you really were brainstorming and trying to get going on your own. Those first efforts—the idea of the 2,4-D and so on—that was in 1947, was it?

FRANKEL: Yes.

THACKRAY: It sounds as if you gave it up pretty quickly when you found you couldn't get the materials you had wanted.

FRANKEL: That's right. [laughter]

THACKRAY: You didn't need the washing machine! Well, you must have been pretty aggravated and frustrated at that moment. The idea of becoming jobbers, as it were—that was born out of desperation, wasn't it essentially? How would you describe that?

FRANKEL: Well, it seemed like a good way to go. Seymour had a job with an export-import company.

THACKRAY: Why had he got <u>that</u> job? Was it simply to get something in the New York area so you could work together?

FRANKEL: No. He was the head of the chemical department. They didn't have a chemical division, but they started him off. Then I went into a similar business where we were offering surpluses in inventories of paint and plastics manufacturers. A lot of these things were in demand in Europe at that time. We'd call various people in the phone book and say, "Do you have any surplus?" They said, "Well, yes." Of course, we were paying much higher prices, so we had a good response.

THACKRAY: We had been discussing buying the surpluses at higher prices. Then what was on the agenda after that? Sending them to Europe?

FRANKEL: Either we would send them to Europe or selling them to people around New York who had other export contacts. We eventually sold most of that stuff ourselves. That business came to an end when we developed our own import contacts.

We bought some spent PCB from a major manufacturing company. It was about, I think, one thousand drums. Then the byproduct. They had drained the PCB from transformers. The PCBs broke down after a while and had to be replaced with new PCBs. We used a public warehouse. Another thing that we had was a byproduct.

THACKRAY: I see. Was your market for these materials in England, for the most part?

FRANKEL: AF-20, in the U.S. We sold aniline to the Chinese market, which they used to make sulphur black dyes. China at that time was buying tremendous quantities of aniline. We sent samples of the stuff, and they evaluated it. Another product we got from domestic suppliers was off-grade methanol. We obtained it from penicillin manufacturers. I don't remember clearly, but I imagine that these domestic suppliers gave us credit.

THACKRAY: With the two of you doing this, when did you first hire another employee? Were you using other people as moonlighters?

FRANKEL: No, we hired employees. I'm just trying to think of when. The first employee—I'm remembering him—was I guess in 1955.

THACKRAY: All right. Initially, was it a fifty-fifty partnership between the two of you? Did you come to blows? Who had the deciding vote? How did that work?

FRANKEL: No, we never came to blows. [laughter] I think we were accommodating. If I really opposed an idea or Seymour opposed an idea, we talked it out.

THACKRAY: Where did the name, "Aceto," come from? Was that just acetic acid? How did that evolve?

FRANKEL: There are a lot of stories about that.

THACKRAY: All right. Which is the true one? [laughter]

FRANKEL: It began with "A." We wanted a name at the start of the alphabet. Years later, this came to haunt us. There was a famous landmark case where we were named in the defense—

one of thirty-five other companies. The case became known as the "Aceto" case. [laughter] Aceto was a chemical plant name. We later imported aceto acetanalide, but that was very much later.

[END OF TAPE, SIDE 2]

[END OF INTERVIEW]

INTERVIEWEE: Arnold Frankel

INTERVIEWER: Arnold Thackray

LOCATION: New York, New York

DATE: 27 March 1998

THACKRAY: How long were you at Irvington Varnish?

FRANKEL: About three years.

THACKRAY: Three years. Were you mainly involved in paint mixing and matching all that time?

FRANKEL: Always in paint, I had to match with the formulas that I knew. I had to make the plastic to match the fabric.

THACKRAY: You didn't exactly need a chemical engineering degree to do that.

FRANKEL: That was part of my job. Part of it was color wash.

THACKRAY: Did you continue working, Miriam, when Aceto, Inc. was first launched? Were you still working full time?

MIRIAM FRANKEL: What was the year of that?

THACKRAY: That was in 1947, I think.

MIRIAM FRANKEL: In 1947? Then I was working, yes. Our first child was born in 1949.

FRANKEL: In 1948.

MIRIAM FRANKEL: I worked until the fall of 1948.

FRANKEL: Until that fall. Yes.

THACKRAY: It must have been a pretty nervous time for you, starting both a family and a company.

FRANKEL: Well, those days were hard. We tried to succeed, and Miriam worked until our first child was born.

[END OF SIDE 1]

[END OF INTERVIEW]

NOTES

1. A. Frankel, "The Story of Aceto Chemical, Inc." (Paper delivered at the 181st American Chemical Society National Meeting, Atlanta, GA, 1 April 1981). See Appendix D.

   A. Frankel, "The Birth and Growth of a Specialty Chemicals Company: A History of Aceto Corporation" (Paper presented at the Chemical Marketing Research Association National Meeting, Philadelphia, PA, 4 May 1987). See Appendix E.

2. A. Frankel, "AF Speech for May 15, 1997 50th Anniversary and Retirement Party" (Speech delivered at Aceto's fiftieth anniversary and Mr. Frankel's retirement party). See Chemical Heritage Foundation Oral History Research File #0167.

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APPENDIX A

Resume
of
ARNOLD FRANKEL

I. BACKGROUND

Born in New York City March 17, 1922. Married, three married children and five grandchildren.

Attended New York City Public Elementary and High Schoolds.

Current residence: New York City

II. COLLEGE EDUCATION

City College, of the College of the City of New York, School of Engineering.
Degree: Bachelor of Chemical Engineering, 1942

Polytechnic University (formerly Polytechnic Institute of Brooklyn)
Degree: Master of Chemical Engineering, 1949

Attended Graduate courses, University of Pennsylvania (1943-1945)

III. COMMERCIAL AFFILIATIONS

Board Chairman and C.E.O. of Aceto Corporation (formerly Aceto Chemical Co., Inc.), headquartered in Lake Success, L.I., N.Y. A 4A publicly-held company.

Following first few years of employment as a chemical engineer in the chemical industry, Frankel become co-founder of the Aceto Corporation in 1947.

1/92

IV. COMMUNITY & EDUCATIONAL ACTIVITIES

UJA - Federation, NYC Chairman of the Chemicals, Plastics and Coatings Division, 1978-1980. Named Honoree in 1985.
Executive Board Member, New York Chapter, American Jewish Committee (1981-1987
Board Member, City College Research Foundation (1975-1986)
Board Member, The Jewish Museum (1976 - 1992)
Board Member, Past-President of Queens Child Guidance Center, Inc. (1974 - 1977). The Center has ten facilities at various locations in Queens County.
Trustee's Committee, American Association of Museums (1977 - 1986)
Treasurer and Board Member, 535 E. 86th St. Corp. (1986 - 1990)
Board Member, Community Board #8, Manhattan, NYC (1988)
Board Member, Chemical Bank's Queens Advisory Board (1979 - 1985)
Board Member, Flushing Hospital and Medical Center, Flushing, NY (1976j - 1979)
Chairman, North East Queens Fair Housing Committee (1961 - 1963)
Important in its time in opening housing opportunities to minority groups.
Trustee, Queens Museum, Flushing, NY (1972 - 1974)

Adult Education
Conducted a series of adult discussion groups on a broad range of subjects, as part of the NYU sponsored adult education program, funded by the Ford Foundation, (1965 - 1970).

V. AWARDS

American Jewish Committee's Human Relations Award - December 1980

VI. ALUMNI ASSOCIATIONS

City College Alumni Association
City College Chemistry Alumni Association

VII. PROFESSIONAL ACTIVITIES

(a) Life Fellow, American Institute of Chemists, (FAIC)
Past Chairman, New York Chapter, (1984 - 1985)
Honor Scroll Awardee, May, 1989.

(b) Other professional association memberships include:
The American Chemical Society
American Association for the Advancement of Science
Chemical Industry Association
Societe de Chimie Industrielle (American Section)
(Past Member) American Institute of Chemical Engineers
(Past Member) Commercial Development Association

(c) Honors Society:
Sigma Xi

(d) Clubs
The Chemists' Club (New York)

(e) Nominator to the Mayor's Commission for Science and Technology of the City of New York (1985 - 1989)

(f) Radio Interviews
Conducted a series of 22 radio interviews with persons prominent in the chemical industry, during each April of 1960 - 1964, in conjunction with The American Chemical Society, Fordham University and its radio station WFUV-FM.

(g) Papers & Seminars
Philadelphia, May 1987 - "The Birth and Growth Of A Specialty Chemical Company: A History Of Aceto Corp."
-Chemical Marketing Research Assn., National Meeting
New York, June 1986 - Co-chaired the Anglo-American Technology-Exchange & Trade Seminar (Co-sponsored by SOCMA/DCAT)
Atlanta, April 1984 - "The Story of Aceto Chemical Co., Inc."
-The American Chemical Society, National Meeting.
New York, January 1975 - "How to Start a Small Chemical Company from Scratch"
-The American Institute of Chemists, NY Section Meeting.
Dallas, April, 1973 - "Growth Via Public Ownership"
-The American Chemical Society, National Meeting.

Tel Aviv, October, 1971 - "The Marketing of Fine Chemicals"
-Israel Chemistry Week (Joint Chemical Association Sponsorship)
Chicago, September 1970 - "Changing Management Responsibilities in a Small Growing Company"
-The American Chemical Society, National Meeting
New York, February, 1969 - "The Marketing and Distribution of Imported Chemicals"
-The American Chemical Society, Divisional Meeting

(h) Technical Papers Published

Industrial Use of Whale Oil
-Chemtech, May 1976
Looking Ahead - Sky Clearing for Chemical Buyers
-Chemical Purchasing, November 1974
Growth Via Public Ownership - A Case History
-Chemtech, June 4, 1974
Israel's "First Chemical Week"
-Chemtech, February 2, 1972
The Changing Management Responsibilities in a Small Growing Company
-Chemtech, April 1, 1971
Cetyl Alcohol - Origins and Uses
-Drug and Cosmetic Industry, December 1955

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APPENDIX B

Aceto's Mann and Frankel: Eyeing more home-grown products.

Resellers in a New Role

While most U.S. companies are stepping up their activities abroad, Aceto Chemical (Flushing, N.Y.) is busily trying to bring its sales of U.S.-made chemicals up to the level of imported products. The company, which acts as exclusive U.S. sales agent for a dozen overseas chemical companies, will continue to try to build its business abroad. But the Common Market is thinning the ranks of foreign firms that need sales agents in the U.S.

The function of the chemical import house has always been a varying one. Such companies have nothing to make or license abroad. Their business can be substantial—but keeping it growing or even at a high level requires plenty of flexibility. And Aceto's latest twist illustrates the current tack such companies must take.

In general, Aceto, which has sales of around $2 million yearly, can be described as a supplier of hard-to-find chemicals that are used in small quantities, such as intermediates for the cosmetic, pharmaceutical and rubber industries. The firm's product list includes over 600 items, some 400 of which might be called active stock; the other 200 items are still waiting for customers.

Look Homeward Angle: Aceto explains its turn toward U.S. suppliers as necessary because company President Seymour Mann feels European trade blocs will force many small European chemical companies to merge to survive. And many of Aceto's current suppliers will be swallowed up in companies that have their own sales setups. The holes left in its products list, due to such moves, Aceto hopes to fill with U.S.-made products.

The company is also looking toward a more active role as a producer of chemicals. It is already producing some—agricultural chemicals and intermediates acetonyl acetone and trimethylene glycol—at the Nitro, W. Va., plant of Roberts Chemical, an outfit in which Aceto has financial interest.

Aceto hopes to tie up soon with a company that is long on research but short on sales, to complement its own heavy sales, weak research, status. In the role of reseller, Aceto, because of small profit margins, hasn't been able to provide the minimum of $100,000 yearly it feels it should have for research.

Some of the areas that Aceto aims to explore in its growing role as chemicals producer is the production of plastics and specialty vinyl monomers that are beginning to find use in organic semiconductors. These materials, which run in the range of $30-50/lb., can replace materials—such as gallium compounds—that carry tags of $500-1,000/lb. In the industrial field the company is now producing such monomers as chlormaleic anhydride and allyl cyanide.

Reed in the Wind: In shifting the direction of the company's main efforts Aceto puts another curve in the zigzag course it has followed since its beginning in '45. Started as a producer of small-volume items used in the cosmetic field, the company has progressively been an exporter of by-product-grade chemicals produced in the U.S., a seller and upgrader of these same chemicals in the U.S., a sales agent for European-produced chemicals in the U.S. Now, of course, it is a limited producer of chemicals hoping to broaden its manufacturing role.

Brooklyn Beginnings: The company set up operations when two young chemical engineers Seymour Mann, now Aceto's president, and Arnold J. Frankel, general manager, decided to produce aceto derivatives (hence the company name) for the perfume industry. Each invested $1,000 in the partnership. Their plant went on-stream in a Brooklyn store. A six months' sales total of $200 sent the partners looking for jobs. Mann did some contract research; Frankel got a job with a plastics company.

New Role—Reseller: In '46 Mann was asked about possible sources of aniline. His admittedly naive reply: "I'll call Du Pont." Du Pont's answer to his phoned query convinced him spot buyers could not expect immediate delivery. He then remembered that aniline is a by-product of vanillin manufacture. A quick check with some local vanillin producers turned up one: Maywood Chemical, that had a carload of aniline available —but it was not pure enough for dye purposes Mann had in mind.

Setting aside his original objective, Mann went to chemical literature, found that the impure aniline was used as a rubber accelerator. He bought Maywood's supply, sold it for export and made $1,000 in an afternoon.

This sent him scouting around for other crudes that might be used this way, and Aceto was reborn as a chemical reseller. Materials that needed some upgrading before resale were farmed out to Truland Chemical (then in Union, N.J.).

Besides refining offgrade materials the company also did some elementary manufacturing. By-product acetic acid, for instance, was mixed with fusel oil to make amyl acetate.

European Plan: By '48 much of the business of reclaiming by-products began to slacken as chemical companies began to recover their own materials. With its U.S. sources drying up, Mann and Frankel went abroad and contacted every company it could. England, then in its "export or die" period, proved the most fruitful, and Aceto began its phase as sales agent for overseas companies. Marchon Products Ltd. (Whitehaven, England) was the first company Aceto represented (for higher alcohols and sulfates).

Following that, Aceto became U.S. sales agent for the dye intermediates and solvents made by the Chemical Division of Distiller's Ltd. (London). Leda Chemicals (London, England) gave Aceto a foreign source of alkyl halides, quaternary ammonium compounds, and fatty acids and related small-tonnage sulfur compounds. In Germany, Aceto's first tie-up was with Hoesch (Duren, Germany), a supplier of metallic salts and plastic stabilizers. Aagrunol (The Netherlands) is Aceto's agricultural and rubber chemicals source.

Returning Home: In '58 Aceto acquired an interest in Roberts Chemical. It became area representative for Roberts, did some of the market research to suggest new products, and developed Roberts as a source of chemicals to round out its line.

While its maneuvers have been profitable, Aceto found that as a reseller of chemicals, its growth pace was limited to that of its principals. This is one situation the company hopes to change by making its own products. It seeks to increase the percentage of domestic materials on its sales list to 50% of their over-all sales dollar (it's 25% now).

And when they have cast off the restrictions imposed by being a reseller, Mann and Frankel, who now own the business 50-50, see a quick route to sales in the $4-million range. When that day comes, the two believe their next phase—public ownership—will be their logical opportunity.

October 15, 1960
Reprinted from CHEMICAL WEEK

APPENDIX C

The changing management responsibilities in a small, growing company

Arnold J. Frankel

When a small company is started, it often represents the combined efforts of only two or three people. They bring together limited resources, a handful of hopefully fruitful ideas, plus a few years of experience in some particular area. To this they add an abundance of energy, willingness to work long and hard hours, expansive ideas for the future and that intangible quality—optimism. Usually their zeal is limited only by too few dollars.

At first, their efforts will be oriented toward the immediate jobs to be accomplished. Let us suppose that two young men, a chemist and a production engineer, start a chemical company with the intention of producing a line of organic specialty chemicals, say, esters. In order to realize some immediate revenue, they undertake some contract solvent reclamation work. Their problems initially will include finding a suitable location: a recently vacated chemical plant, a former milk pasturizing plant, or a similar installation available at low cost that can be adapted to their needs. Our two young men are resourceful or they wouldn't be attempring this venture in the first place, so they spend a minimum of dollars and a maximum of their own time to achieve the set-up required.

To hold costs down, they do many of the start-up jobs themselves, supplementing their own talents with those of itinerant or moonlighting plumbers, electricians, and carpenters. By employing part-time people—moonlighting policemen, firemen, and part-time college students—the number of costly full-time skilled craftsmen is minimized. Their first customer or two are probably purchasing-agent friends with companies in the local area.

As the need becomes evident, our entrepreneurs will want to separate their activities, one of the pair will act as part-time salesman. This means that he will don a business suit from time to time, scrub his hands and sally forth to visit his handful of customers, real or potential. The other partner, meanwhile, will gather first-hand experience in plant hiring as he brings in people to work as operators, helpers, maintenance men, or a combination of these. It is important to bring in especially good men at this early stage who can grow with the company. Even if they lack a good, formal education they can grow because they are working directly with the heads of the company and will remain visible to them.

Our entrepreneurs will be their own plant and design engineers. When they have decided on their equipment needs, they will be their own purchasing agents, visiting local used-equipment dealers, following equipment ads and auctions, and making do with whatever is available cheaply. They will use deferred payment wherever possible since their initial capital will probably be limited to a combination of their own savings, loans from relatives, and perhaps a limited line of credit from a local bank.

When the initial manufacturing orders are in hand, and their plant is set up and ready, both "bosses" will work as production men, plant and analytical chemists, shipping clerks—everything necessary to get their first orders out on time and to specification. Everything will get personal attention including payment of invoices due them. One can be sure that our friends will be most ready to pick up a check personally on the due date of an invoice. It is all hard work but enjoyable since each phase is a "doing challenge" and also fun in its own way.

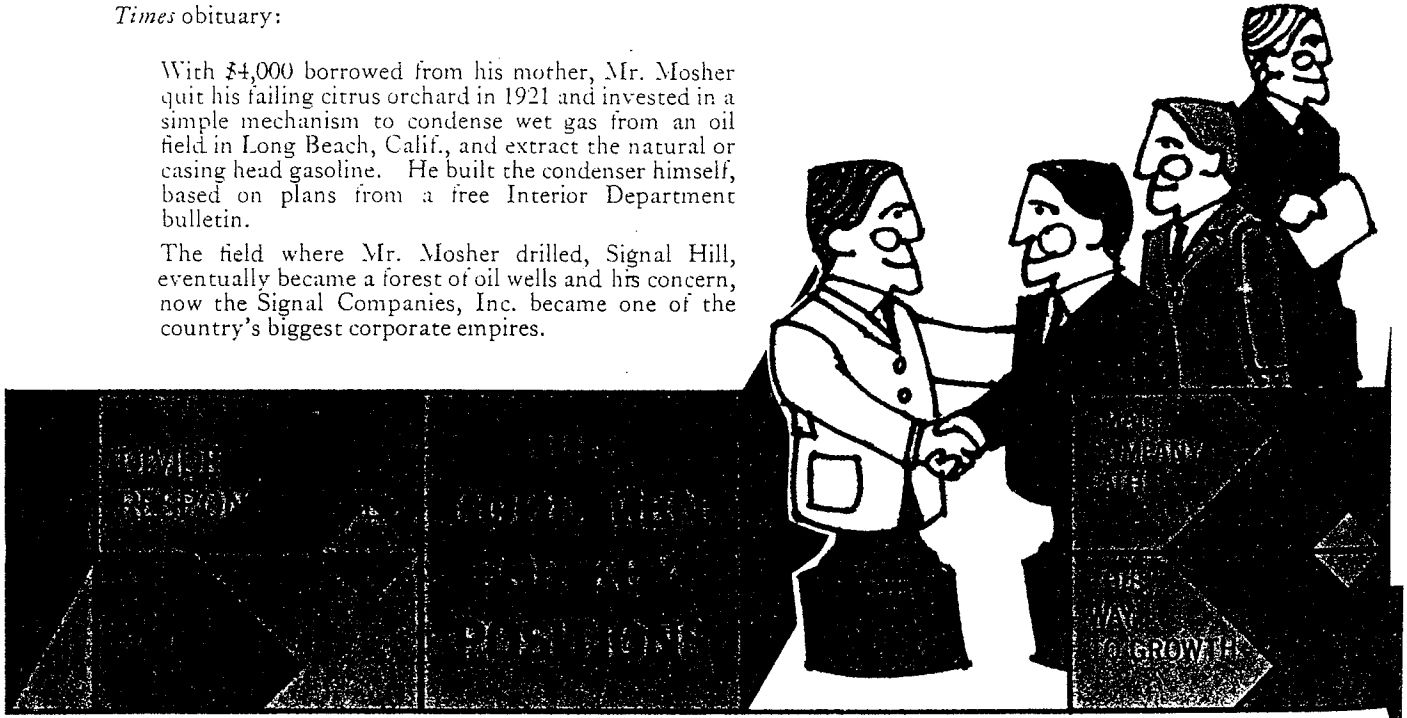
As business increases, it will, of course, consume more and more of the entrepreneurs' time. They will be assisted

Together with Seymour Mann, Arnold Frankel founded Aceto Chemical Co. Inc. in 1947 "on a shoestring." In 1962, the company brought out its first public stock issue, and in 1968, its second. Current annual sales are $14 million. Mr. Frankel is now Chairman of the Board. Mr. Frankel, who received a Bachelor of Chemical Engineering from The College of the City of New York (1942) and Master of Chemical Engineering from The Polytechnic Institute of Brooklyn (1949), is a member of the ACS, AAAS, Sigma Xi, and a Fellow of the American Institute of Chemists. Mrs. Frankel is a nursery school teacher and there are three younger Frankels.

by their good plant people and their office "gal friday," who serves as switchboard operator, stenographer, order-taker, bookkeeper, and biller. They will do many jobs themselves, not only because they have limited funds, but also in the belief that no outside person could be competent enough to do the most important jobs. But after a year or two, they will either be limited by this "do-it-yourself" philosophy or will begin to understand the concept of delegating authority and responsibility. *But this growth route does not appeal to everyone.* It involves trading in the very talents that enabled starting the business for an entirely different package of abilities. Some people will not take the growth route because they enjoy best doing exactly what they have been doing. Others fear that knowledgeable, professional-level employees might steal the business. A few are simply reluctant to increase overhead, a big step in the early years.

But if they do take the growth path and build an organization, changes will gradually occur in the conduct and personalities of the principals. This changing role is alluded to in the capsule review of the life of S. B. Mosher, founder of the Signal Oil & Gas Co., written as a *New York Times* obituary:

> With $4,000 borrowed from his mother, Mr. Mosher quit his failing citrus orchard in 1921 and invested in a simple mechanism to condense wet gas from an oil field in Long Beach, Calif., and extract the natural or casing head gasoline. He built the condenser himself, based on plans from a free Interior Department bulletin.
>
> The field where Mr. Mosher drilled, Signal Hill, eventually became a forest of oil wells and his concern, now the Signal Companies, Inc. became one of the country's biggest corporate empires.



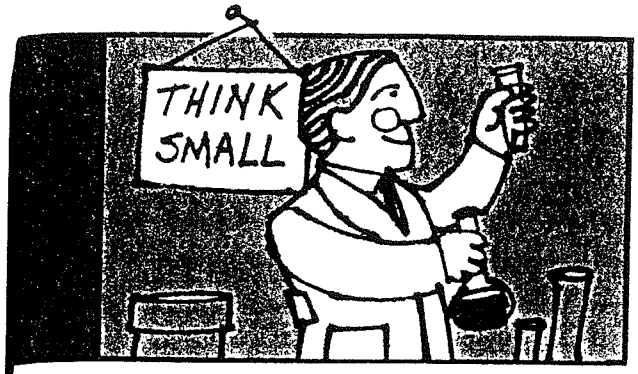
Mr. Mosher's role had obviously changed over the years from one of doing to one of planning, managing, evaluating, and risk taking.

A first step in this direction could be the selection of a sales manager. If one can choose and train a man to be a sales manager, he has taken a step forward in delegating responsibility. If that man, in turn, is a good sales manager who is capable of selecting and training salesmen, he will develop a strong commercial arm. A marketing manager or a new product manager is to be chosen next, and then a production manager. Invariably decisions must be made whether to promote from the existing staff or recruit from the outside. In making the choice, consideration should be given to relationships within the organization and to the effect the new man will have on the morale of present employees who expect to advance.

Obviously the entrepreneur's job has now become more involved with people; industrial psychology if you like. The entrepreneur is, of course, building an organization and the very nature of this process changes his role. In the early stages, the entrepreneur has kept close watch on production as this is the life-line of his business. Although he has been involved in every day-to-day detail and knows every employee, new kinds of problems will occupy more of his time leaving less time to attend to operating difficulties. As his labor force grows, he will, for example, be faced with the problem of unionization. He will then require a competent personnel man and labor negotiator. He will also have to continually evaluate the ability of his attorney, his accountant, and his banker to fulfill the company's growing and changing needs.

Now, at any stage the owners of a company can decide not to continue expanding. In fact, many do cry, "stop right here. I don't want to grow any further." We do not read about these people because industry news is only "news" when it is directed towards change, and this usually means growth, innovation, expansion or acquisition. Maintaining the status quo is not news.

If maximum growth is one's goal, its fulfillment can probably be achieved only by a substantial infusion of new capital. To achieve this end, there are several routes that may be chosen. (1) Merger with a larger company that effectively is a sale to them. This route, however, will not appeal to the youthful entrepreneur. (2) Money may be raised through so-called private stock placement, but (3) Selling shares to the public or "going public" will most likely become the desirable method. The decision to do this may be an agonizing one because it is made on the basis of information and data that are very different from the kind used to make the decisions on which the business was built. The owner will meet financial people who may seem



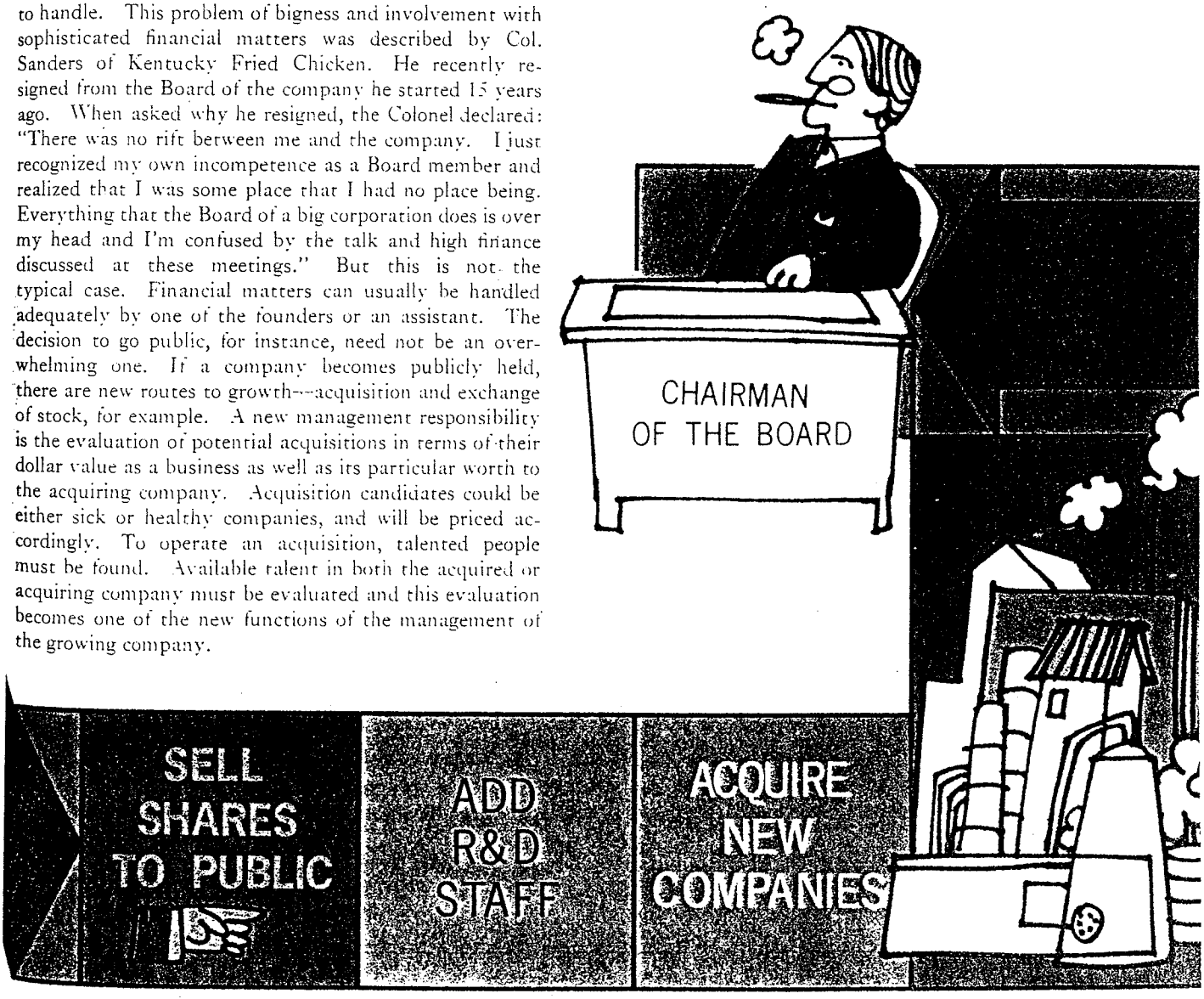
formidable because they ask the kind of questions that are new to him. They are looking at future earnings and will tend sometimes to translate his optimism into "guarantees" of future profit. A conservative person may feel awkward answering their questions. In due course, he will learn to handle inquiries such as "where do you expect this company to be 5 years from now?" in a way that is both truthful and satisfactory to financial analysts.

However, a company sometimes grows to a point where its financial complexities become too involved for its founder to handle. This problem of bigness and involvement with sophisticated financial matters was described by Col. Sanders of Kentucky Fried Chicken. He recently resigned from the Board of the company he started 15 years ago. When asked why he resigned, the Colonel declared: "There was no rift between me and the company. I just recognized my own incompetence as a Board member and realized that I was some place that I had no place being. Everything that the Board of a big corporation does is over my head and I'm confused by the talk and high finance discussed at these meetings." But this is not the typical case. Financial matters can usually be handled adequately by one of the founders or an assistant. The decision to go public, for instance, need not be an overwhelming one. If a company becomes publicly held, there are new routes to growth—acquisition and exchange of stock, for example. A new management responsibility is the evaluation of potential acquisitions in terms of their dollar value as a business as well as its particular worth to the acquiring company. Acquisition candidates could be either sick or healthy companies, and will be priced accordingly. To operate an acquisition, talented people must be found. Available talent in both the acquired or acquiring company must be evaluated and this evaluation becomes one of the new functions of the management of the growing company.

Often in a small growing company, the principals, plant people, and analytical staff double in research and development. However, for real sustained growth, it is necessary to install a separate competent R&D staff. If brand new ideas and avenues are lacking, one is limited to product and process improvement only. The choice of avenues for R&D is, nevertheless, limited in a small company, since the available dollars for capital expenditures are obviously limited.

The changing responsibilities, in summary, then are the shift in emphasis from a "doing" role to one of planning, evaluating, follow-up, and projecting. The owner-managers of a growing company must recognize the change in role that growth will mean and decide if, in fact, the new direction will be satisfying or not—in tune with their own dispositions. If not, if attention to detail is more satisfying it may be advisable to sell one growing company and then start another. But if achievement through others and overall control of policy is appealing, then the role of top manager is the proper one for the owner of a growing company.

Presented at the 160th National Meeting of the ACS, Chicago, Ill., 1970.



APPENDIX D

THE STORY OF ACETO CHEMICAL CO., INC. -

A. J. Frankel
Aceto Chemical Co., Inc.
126-02 Northern Boulevard
Flushing, NY 11368

Division of Small Chemical Businesses
181st American Chemical Society National Meeting
Atlanta, GA
April 1, 1981

It is a privilege and a pleasure to be able to address this group today - because the small business sector gives me a forum to do a retrospective of my own company, founded in 1947 by its present-day Chairman and President. I hold one of these positions, i.e. Chairman, and my co-founder and original partner holds the other: President.

The first 15 years were the hardest, and those years were relatively free of the regulations and many of the government agencies that today are so well-known to all of us.

But we had other problems in the late 1940's; mainly shortages of raw materials. Our initial plan was to make and market two products - a glycol-based anti-freeze, and a herbicide. With no capital, and only a little knowledge of what was happening in the real world, we rented a store in Brooklyn, NY, to serve as manufacturing headquarters. We devised a tradename for our first product: Freezol - not a bad name. We ordered product labels to be applied to 1-gallon cans, but then we were stuck - glycols were

in short supply: they were on allocation. With no prior history of use, our allocation was zero. We knew of no new small business set-aside quotas, so we abandoned this product idea. We went on to our next product: a herbicide. Herbicides were new - remember that we were in the post World War II period, but still pre-Korean War. If we were to make a herbicide for home lawn use, whose purpose was selectively to kill broadleaf weeds, we could get a share of this new market. We placed trial orders for Dichlorophenol and Monochlor Acetic Acid. This time we were lucker with delivery - a 100-lb. keg of MCAA actually arrived, but not the Dichlorophenol. We bought ourselves a reactor - an old home washing machine. But we never did find out whether our reactor was adequate to make Weedol - as we planned to call our 2,4-Dichlorphenoxy Acetic Acid product. Nor did we come to grips with the entrapment and recovery of the HCl by-product that would be generated. It began to sink in that with no raw material position, perhaps we should take an entirely new approach. If processing raw materials was a problem,

perhaps other people had this problem too. So we looked around and discovered that many, if not most, of the basic and even not-so-basic raw materials were in short supply. But there always were by-products, off-grade materials, reclaimed solvents, and surplus lots to be upgraded and resold.

The incidental ecological benefit of recycling materials was in no way appreciated in 1947-48 - on the contrary: anyone interested in this kind of marginal activity was on the periphery of the industry, and of respectability. Garbage was for the garbage man, and he hadn't degrees in chemistry or chemical engineering nor any need for them.

But this period after World War II was also the time that Europe was rebuilding itself, and any surpluses here were eagerly grabbed up by a raw material starved world. An off-grade by-product Aniline, available to us from a New Jersey manufacturer of Vanillin, was purchased by marketers to the export trade for eventual sale to China. Its use: to make Sulfur Black for dyestuff use. This

was before any trade embargo had been imposed against China that was to last for a quarter century. However, since by-products were, by their nature, limited in supply, our company soon began looking for new sources and, in 1949, Aceto started importing a small volume of chemicals.

By 1950-51 many chemicals that had been unavailable in the USA began to appear on the market, but this era was short-lived. Came the Korean war - and again - a USA shortage of chemicals. And this time we, as a company, and others, turned our sights towards a quickly recovering Europe as a possible source of chemical raw materials. Supplies were erratic and, for the most part, came from European merchants and exporters, rather than directly from producers. Although we were doing most of our business in odd parcels, we did make some direct supplier contacts - Cyanides from Czechoslavkia, Fatty Alcohols and Alkyl Sulfates from England. I should add that we had, by this time, disposed of our Brooklyn manufacturing headquarters, and were established in a small Manhattan office.

Still in the early 1950's we added several reputable and long-established British companies to our supply string. Totally unfamiliar with the USA and its needs, they welcomed visits from young Americans eager to buy for resale in the USA. England was then our major source - sources from continental Europe were better handled by Americans of European background, who were multi-lingual and perhaps had old ties to suppliers. Some of them even resumed associations that had been interrupted by the Nazis during the war years.

A promiment Wall Street firm, writing about our company, described us as follows ---

"In the early 1950's when chemicals again became freely available in Europe, many European producers were without an American marketer because of the disruption in supplier-customer relationships caused by World War II. Aceto was in a position to meet this need, and in order to enhance its position in the market, the

company developed an ability to provide extensive service to both customers and suppliers, monitoring quality control, maintaining adequate inventories, and handling both orders and problems reliably and expeditiously. In addition, Aceto developed a thorough knowledge of the capabilities of its suppliers and the needs of its customers."

By the mid-fifties, we had introduced the products of several first-class UK companies to the USA: fine chemicals from a division of The Distillers Co., which later became part of the BP group, Alkyl Sulfates and Alkylol Amine Sulfate from Marchon Products, later to become a division of Albright & Wilson, which, in turn, became a subsidiary of Tenneco. Fatty Alcohols from Glovers, which became a division of ABM and, in turn, the Dalgety Group. Intermediates from Hickson & Welch, a company that is still independent. Their capability to nitrate, hydrogenate or reduce, chlorinate and sulfonate: Benzene, Toluene, Xylene and Aniline, has made it possible to supply many intermediates to the USA market.

By the end of that decade, Japan began to offer products to the USA. A totally different marketing vehicle was used by the Japanese - the trading company as intermediary. Traditionally, the old Japanese manufacturers were not equipped to deal with the west: they neither spoke western languages nor understood Western ways. The trading companies were the self-proclaimed experts in the areas of international finance, shipping and government regulations. They even arranged financing for their suppliers when necessary. Initially, Japanese standards on many products were then not up to USA or western world standards, and the Japanese would say so: "Not up to duPont's quality" a supplier confessed in 1959 when offering me Sulfamic Acid. But, in a very short time, they learned to produce hundreds of chemicals of a quality equal to the best available anywhere. We became sellers of many Japanese intermediates searched out and located for us by a superb Japanese trading company, a specialist in intermediates. Another Japanese trading company has worked very closely with us on chemicals other than intermediates.

The Japanese custom of doing business through trading companies produced some strange results at times: the procurement of products through an independent trading company, even though the producer company are themselves part of a conglomerate that has its own trading company, and even its own USA office.

Financing need: But the advent of the Japanese as serious suppliers of chemicals brought on a new problem for us, which we did not yet discuss - the need for financing. Until now, we managed to finance our transactions with supplier credit, but the Japanese insisted on letters of credit, which meant dollars "up front". We also were planning new undertakings that would require capital - which we will discuss in due course. We solved our problem by deciding, in 1961-62, to sell 40% of the company's stock to the public for $450,000. Our annual sales volume at that time was $1½ million.

In addition to financing our emerging Japanese business, we purchased a small chemical facility in Astoria, LI. This facility was on a leased acre of land, and introduced us to chemical

manufacturing: both low volume-high priced products, as well as high volume-low priced ones. The latter category described our production of Zinc Chloride solutions made from a variety of raw material crudes, each lot of raw material a research project. Tanks and tank-trucks of liquid crudes and acid, as well as mounds of Zinc scrap and Zinc salts, finished and intermediate product, occupied much of this tiny plant's limited area. We also developed processes to synthesize 2 or 3 organic chemicals that accounted for a few thousand dollars of revenue each year. (Acetonyl Acetone and N-Methyl Acetamide.)

Pentalite: In the Fall of 1962, a few months after our sale of shares to the public, we learned of the availability of a World War II surplus inventory of several hundred tons of an explosive called Pentalite. This lot, originally made in the USA, was sold to the UK by the US government, under special World War II agreements. The material, still in England, and owned by the British government, was for sale. The purchase bid was to be a negotiated one. Aceto, in partnership with British friends who had located the lot in the

first place, were awarded the material. A British export license, the chartering of a ship, a USA State Department permit, a USA Munitions License, a US Commerce Department clearance, documents to authenticate the goods as originally of USA manufacture, and port permission in ~~Kings Bay~~ St. Mary's, GA, were all required before the material could be brought in. When the ship did arrive, it included a few dozen broken cases of the explosive Pentalite. The cases off-loaded at the port of entry were not transportable within the USA. However, the damage was not discovered until the ship departed for its return voyage to Europe. This made for an unpleasant weekend for me, because of the "Catch 22" choices available to us, as totally inexperienced handlers of explosives. All was eventually resolved with the help of the U.S. Army: they agreed to repack the broken cases at their own port facility. Each of the three major powder companies in the USA purchased a portion of the lot, and additional material was sold to a subsidiary of one of them in Canada

We netted a six-figure profit from that transaction, as

did our UK partner. In addition, we afforded our customers substantial savings. I think today's multitude of regulations would render such a transaction difficult and costly, if not impossible. It was an unusual opportunity. We were the right people in the right place at the right time.

By 1965 we needed larger office quarters. We had just bought a small company called Pfaltz & Bauer, or P&B as we usually say; on the verge of filing for bankruptcy. They were housed on three floors of a multi-story loft building in Greenwich Village, NY. In order to avoid bankruptcy and salvage of the company financially, we had to do many things. We transferred their manufacturing to our Astoria plant, we negotiated lease terminations, and discontinued their money-losing research laboratory equipment lines. We had bought a strange company that had been profitable for 50 years, but was rapidly facing oblivion due to the simultaneous impact of a number of adverse factors. Aside from the manufacture of one product that was transferred to our plant in Astoria, LI, the rest of P&B was

joined with Aceto at our new larger quarters in Flushing, NY. We utilized their research contacts to establish and market a new line of research chemicals, which is still P&B's largest activity.

P&B soon moved to its own larger headquarters nearby, and moved again, in 1975, to Stamford, CT. Aceto, in turn, took over all of P&B's vacated space for its own office needs.

Aceto's annual sales in 1965 were $3½ million. In 1968 the company decided to sell additional shares to the public. 70,000 shares at under $10 per share netted the company nearly $700,000.

Aceto took a larger step into manufacturing in 1969 when it acquired an 11-acre fine-chemicals manufacturing plant, at Carlstadt, NJ, from the Inmont Corporation. This facility, now known as our Arsynco Division, is Aceto's largest chemical production plant. At the time of its acquisition, Arsynco was operating at a loss; however, Aceto expanded Arsynco's line of pharmaceuticals and fine chemicals, improved the physical plant, and established a better relationship with both the managerial and operating staffs, and the operation became profitable.

In 1970 our sales, including the new manufacturing subsidiary, reached over $14 million, nearly 50% above the prior year. The Astoria, LI, operation was soon to be dismantled: the Zinc Chloride operation was discontinued, and the organic chemical manufacturing aspects were phased into Arsynco's program.

Now that we had become a "chemical conglomerate", with a serious manufacturing capability, we again needed additional operating capital. In 1971 we sold $1½ million of bonds, or "8% subordinated debentures", as they were called. In order to make these bonds attractive to investors, we offered bond buyers so-called warrants on our common stock, i.e. the right to buy stock on favorable terms, as an added incentive.

In 1971, the company acquired another chemical manufacturing facility, Roehr Chemicals, from the Brunswick Corporation. Although Roehr was not then profitable, one of its major products was also an important raw material for Arsynco, and, as a result of expansion of both intra-company and outside sales, Roehr became profitable

almost immediately after its purchase.

Roehr is still managed by its founder, who continues to be its President.

Now that we have put all the properties in place, let's go back and take a look at what Aceto was doing in the import-distribution area. 1975 is a good reference-point year, because it was the marker for Aceto passing $50 million in annual sales. At this sales level, how did we operate our import-distribution business? How was the company structured?

In charge of marketing and sales is an Executive Vice-President. The several marketing area managers report to him, each autonomous to a greater or lesser degree, depending upon the specifics of each sector. Our marketing areas included (1) agricultural chemicals, (2) chemical intermediates, (3) coatings and specialties, and (4) bulk pharmaceuticals. The manufacturing divisions market their products through the appropriate Aceto marketing areas. P&B handles its own marketing.

I want to talk about some of the divisions in detail.

(1) The agricultural division: Government involvement in agricultural chemicals goes back many years - twenty years ago the USDA administered the approval of pesticide labels. Obtaining these labels was then a simple and routine matter. Later, the label approval function was transferred to the pesticide section of the EPA. Many things changed, and the issuance of labels became the subject of complicated legislation: a proprietary interest was recognized in the test data necessary to validate a pesticide's use, compensation for such data has become the subject of new legislation including arbitration, and even the Courts. In summary, older labels were in safe harbor, but could be upset by new testing requirements; new labels are virtually impossible to get; and intermediate term labels, already issued, could become tug-o-war properties if an effort is made by one seller to establish dominance over others.

Protection of the environment had become a vehicle by which patent protection could be extended beyond a patent's expiration date.

In a word, it became especially difficult for newer and small companies to further theselves in the pesticide marketplace.

(2) Chemical intermediates: The dyestuff and color industries have given way to dominance by more foreign companies: Ciba-Geigy, Sandoz, Bayer, Hoechst, ICI and others have intensified their activities in the USA by acquisition of American plants. American producers such as Allied, GAF, duPont and American Cyanamid have resigned from the color business. These changes resulted in the displacement of some suppliers in favor of the new foreign arrival's own raw materials from abroad. The 1979-80 recession also took its toll in the form of lost business due to cut-backs in textiles, housing and automobiles. But, for Aceto, new sources of supply meant additional new products. The lesser-developed countries in the Far East and Europe have become our newest suppliers: China, India, Pakistan, Korea, Romania, and Spain, are producing products with good technical specifications, at competitive prices, and have gained a market share for some products formerly supplied by Japan

or Western Europe. These and other less developed countries will become more important in the years ahead.

(3) Coatings and Specialties: is a catch-all division for us, because of its ability to seek out unusual uses for products with diverse uses. An example of such diverse applications is the uses for Tannic Acid: in chewing gum formulated for denture wearers; in the manufacture of wine and beer, as a clarifying agent. This division also handles Organotins, Titanium Dioxide, Zinc Oxide, special resins, and hardeners and curing agents.

(4) Bulk Pharmaceuticals: include products for both human and veterinary use, and it also markets Phenyl-Propanolamine, which we manufacture at two plants. This division markets Sulfonamides in bulk quantities. Choline Bitartrate, Lidocaine, Quinine, Probenecid, Salicylates, and a variety of other bulk pharmaceuticals are also included in their line.

Our manufacturing divisions market through the appropriate sales divisions, with the costings and specialty division holding

chief responsibility for all those products not marketed elsewhere.

So, after 33 years, we reached a sales level of nearly $90 million. We have had good years most of the time. We have always been profitable. We have exceeded our prior year's sales in most years, although they may decline slightly this year. Profits have exceeded those of the prior year for the last 24 years! We'll know about this year's profits a few months from now.

The particular opportunities available to our company have been a function of time and place. Many of the opportunities could not occur today, but there always seem to be new ones, even though today they are more difficult to locate. A few of the problem factors that did not exist until recently are: air and water pollution awareness and regulations covering every aspect of toxic materials: their manufacture, shipping, use and labeling. Special taxation of chemicals or their manufacture as a function of these problems is also new: the superfund, state taxes on flammable or toxic chemicals; licensing of certain chemical uses, recently put into effect in one

city, TSCA, disposal regulations, etc. The non-productive costs, together with huge new insurance costs, especially for products liability, and the ever-increasing need for legal services, make it difficult, other things being equal, for someone new in the chemical industry.

The recommendation that I can offer to a would-be entrant is: seek out some specialized niche - that is your best bet. But how and where is something that each enterpreneur or would-be entrepreneur will have to figure out for himself. There are still some opportunities in these United States.

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APPENDIX E

THE BIRTH AND GROWTH OF A SPECIALTY CHEMICALS COMPANY: A HISTORY OF ACETO CORPORATION

By Arnold Frankel
Chairman, Aceto Corp.

ABSTRACT OF PAPER
PRESENTED BEFORE THE
CHEMICAL MARKETING RESEARCH ASSOCIATION
NATIONAL MEETING

May 4, 1987

PHILADELPHIA, PA.

Aceto Corporation was founded in 1947 with very limited capital. The founders remain with the company and today occupy the positions of President and Chairman.

The Company "went public" in 1961 at which time its sales were $1.5 million. At that time it began to distribute speciality chemicals and has continued to grow in this area with distribution still its major activity. Over the years, it acquired three producer subsidiaries.

Today, Aceto is an aggressive marketer of speciality chemicals from sources throughout the world supplying the agricultural market, dye and pigment producers, pharmaceutical manufacturers, plastics, coatings, and other industries. Sales are approximately $100 million.

Most of Aceto's products are imported. Each product area is marketed through a quasi-autonomous department responsible for both the purchases and sales of its own lines. Self manufactured lines are marketed through the same marketing groups used to market Aceto's major products, i.e. its import lines.

Distribution is by direct sale to consumers for the bulk of the Aceto line, and by local area distributors for that small percentage of products where it is more appropriate. The entire marketing effort is directed by an Executive Vice President.

The entrepreneurship of Aceto's executives who had been recruited, for the most part, when in their mid-twenties, is a major factor in the success of the company.

ARNOLD FRANKEL
BIOGRAPHICAL INFORMATION

COMMERCIAL AFFILIATION

Board Chairman and Treasurer of Aceto Corporation (formerly Aceto Chemical Co., Inc.), headquartered in Flushing (Queens County) New York City. A 4A publicly-held company.

Following his first few years of employment as a chemical engineer in the chemical industry, Arnold Frankel became co-founder of Aceto Chemical Co., Inc. in 1947.

PERSONAL BACKGROUND

Born in New York City March 17, 1922. Married, three married children and five grandchildren.

Attended New York City Public Elementary and High Schools.

Currently resides in New York City.

COLLEGE EDUCATION

City College, of the College of the City of New York, School of Engineering.
Degree: Bachelor of Chemical Engineering, 1942

Polytechnic University (formerly Polytechnic Institute of Brooklyn).
Degree: Master of Chemical Engineering, 1949

COMMUNITY ACTIVITIES

Arnold Frankel has been active in and affiliated with community organizations concerned with neighborhoods, health care, education, museums and commerce.

PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Fellow, American Institute of Chemists, (FAIC) (1968 -)
Past Chairman, New York Chapter, (1984 - 1985)

The American Chemical Society
American Association for the Advancement of Science
Chemical Industry Association
The Chemists' Club (New York)
DCAT (Drug, Chemical and Allied Trades Association, Inc.) (Corporate Representative)
SOCMA (Synthetic Organic Chemical Manufacturers Associations) (Corporate Representati
Sigma Xi

Arnold Frankel has presented a number of papers at professional society meetings, chaired seminars, conducted radio interviews on chemistry and published several technical papers.

5/4/87

THE BIRTH AND GROWTH OF A SPECIALTY CHEMICALS COMPANY: A HISTORY OF ACETO CORPORATION

5-4 1987

Arnold Frankel
Chairman
Aceto Corporation
Flushing, New York

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A recent article in the New York Times on specialty chemicals contai the following: "And while a commodity chemical can bring in $3 million in a single order, a typical specialty chemical sale will produce about $400,000. But specialty chemical companies offer thousands of products."

If Aceto's sales were to fall within the so called "typical" specialty chemical sales pattern cited in the Times article all we at Aceto would need is but one of those $400,000 sales per day. In a 250 work day year, we would reach a sales volume of $100 million which coincidentally is Aceto's annual sales volume. However, Aceto's average sale for its line of specialty chemicals, is a mere $10,000 - $12,000 per sale. In our agricultural chemicals division the number of sales is fewer, but each sale is much larger, our average sale here is closer to $40,000 - $50,000. So much for the New York Times!

Now let me tell you more about Aceto.

PRESENT ACTIVITIES

Aceto Corporation markets approximately 400 chemicals in commercial quantities. They are warehoused at over 30 locations, both port and inland cities throughout the USA. Sales for fiscal 1986 reached a new record and topped the $100 million mark. Of this total, two-thirds were fine chemicals and one-third agricultural chemicals. About 15% of the fine chemicals are produced in Aceto's own plants; the balance were imported and distributed in their original packages or bulk containers. 3% of our fine chemicals are packaged as research chemicals and sold to industrial R&D facilities, universities or government agencies.

Our agricultural chemicals which account for one-third of our sales are divided into 2 categories: half were resold in original packages and the balance formulated by subcontractors into a ready-to-use form. We use subcontractors to do the formulating for us, since they have facilities permitting high volume throughput in a short time enabling us to accommodate the farmer's needs for the growing season.

EARLY BEGINNINGS

It was in 1945 that the Aceto name was first used to describe a small partnership venture. It was the end of World War II, and many chemicals were in short supply so that it was no surprise that our new venture, Aceto Chemical Co., had difficulty obtaining raw materials. We had planned to package an anti-freeze, a weed killer and an insecticide in a small garage-type operation plant in Brooklyn, New York. The venture was doomed to fail because of the difficulty in obtaining raw materials without a historical purchasing pattern. This was of course a "catch 22" situation making it impossible for a newcomer to get a toehold. No history - no allocation - no business. The venture was abandoned

ACETO CHEMICAL CO., INC.

But in 1947, two years later, the Aceto name was revived, this time incorporated as the "Aceto Chemical Co., Inc." with another chemical engineer and myself as its founding fathers. Today, some forty years later, the name has been changed to Aceto Corporation, but the "other chemical engineer" and I are still at hand. My partner then was Seymour Mann; today he is Aceto's President, while I act as Aceto's Board

The company that we established in 1947 was limited by both its lack of capital and the inexperience of the founders. Its major activity at that time was the purchase and sale of by-products and surplus chemical inventories. Chemical by-products obtained by us were subcontracted to be reclaimed, redistilled, or otherwise reprocessed and upgraded, where necessary, to meet acceptable commercial standards. Today, as you all know, the manufacturer, shipper, transporter, buyer, seller, importer, exporter, warehouser and user of these chemicals require licenses, permits, approvals or otherwise fall under the jurisdiction of some dozen government agencies involving hundreds of regulations at Federal, State, County and local levels. These necessary but costly regulations have an impact on the ability of smaller companies to operate and survive. It is doubtful that today a small company could be established in the business of solvent and by-product reclaiming.

During the post-war period, around 1947, with many raw materials still in short supply, domestic manufacturers, especially the smaller ones, were happy to obtain any good quality raw material. Foreign buyers who had no USA allocations were even happier to get supplies from the USA during that era of tight supplies.

By 1950, the chemical industry in both the USA and Europe was getting back on its feet and was beginning to return to what may be described as "normal". But then, suddenly, the USA found itself embroiled in the Korean War. This war created new shortages in the USA which were alleviated to some extent by the importation of chemicals from abroad. Odd parcels were offered on an irregular and spotty basis from both European exporters, and to a lesser extent, directly from European manufacturers.

A few years after the Korean War, supply sources and the demand for products settled into what was to become a normal peacetime pattern. Supplies became plentiful, and suppliers needed distributors: foreign suppliers needed USA distributors. New international buy-sell relationships were in the process of formulation, and we were finding our niche.

Our first European suppliers, aside from merchant exporters, were British producers, and our personal visits to the United Kingdom and then to other European countries helped establish our on-going relationships with them. By 1960, we had become the USA representative of several first class companies: The Distillers Co. Ltd. (now BP Chemicals); Glovers Chemicals Ltd. (now ABM Chemicals Ltd., a subsidiary of the Rio Tinto Zinc Group); Marchon Products Ltd. (now a division of Albright & Wilson Ltd., which in turn became a subsidiary of Tenneco USA); British Celanese (whose name disappeared and is now known by the parent's name: Courtaulds); Ward Blenkinsop Ltd. (now a division of Shell Chemicals UK Ltd.); and Hickson and Welch, Ltd., the only company of this group still independent and still known by the same name. These companies supplied intermediates for the pigment and dyestuff industries, (Arylides, Nitro & Chloro toluidines, Aceto-acetic Esters, Diethyl Sulfate, Acetyl Acetone) pharmaceutical intermediates and surfactants. We soon added additional products to our lines: Agricultural fungicides - Dithiocarbamates from Aagronol N.V. in Holland (now Akzo Chemie), Aluminum Formate from Chemische Farbrik Hoesch in Germany, and others.

After the Korean War, the chemical industry in the USA was for the most part self sufficient. We in the USA had an industrial base undamaged by the ravages of war, a highly productive work force, and an abundant supply of cheap raw materials particularly oil. However, as Europe and Japan's new post-war factories were rebuilt they were soon to offer a variety of chemicals and become keen competitors in the USA market. Because European and Japanese producers were operating new plants with

as DuPont, but will be better next year", and it certainly was. We soon began to receive interesting offers of intermediates from Japan through a competent and well-placed agent - who still enjoys his status as number one with Aceto. At that time, (in 1960), Aceto's annual sales were $1,000,000. In 1962, the year we went public, sales had risen to $1,200,000 with a potential for substantial further increases from imported sources.

But the Japanese government had strict financing requirements - - - it was mandatory that, as buyers, we open letters of credit. This in turn required a potential financing capability beyond our means. To meet this and other anticipated needs we "went public" in February 1962. We raised approximately a half million dollars by selling 40% of the company's equity to the public. The "application of proceeds" section of our prospectus earmarked half of the money for expansion of inventories. This primarily meant purchases from Japanese suppliers. European suppliers, for the most part, were willing to sell to us on open account terms. Additional financing from outside sources was not yet a serious need, but was available on a limited basis from our banks.

By 1973, imports had made minor inroads into the fabric of the US chemical industry. These imports were regarded by many buyers as auxiliary or even second class sources which were tentatively accepted, for a small percentage of their requirements by a skeptical and somewhat reluctant "Buy American" oriented industry. But, 1973 was the year of the oil embargo and soaring oil prices resulted in a chaotic market place for chemicals with shortages creating disruption and disorganization. Manufacturers were rationing or allocating hundreds of raw materials, resulting in a strong demand for products from new sources, even imports, and often at substantially higher prices. Buyers of chemicals were now seriously interested in additional sources and imports began to be viewed from a new perspective. If heretofore one or two domestic sources had been adequate, there was now a new imperative to lock in one additional source - an import source - to give chemical purchasing management the flexibility and safety that they needed to assure a continuity of raw material supplies.

This view affected our company's growth favorably. In 1973, Aceto's sales reached $23,000,000. The addition of two medium sized family owned European pesticide manufacturers to our supplier roster helped our forward sales thrust in the ensuing years. By 1975, our sales exceeded $50,000,000. In two years, our sales had more than doubled, and our profits had quadrupled. These new levels of sales and earnings continued to increase over the next decade so that by 1986 our sales reached over $100,000,000 and profits more than doubled from the 1975 level. In 1986 profits reached nearly $5,000,000. (See Table I charts)

SOURCES OF SUPPLY

In our earlier days, Aceto, as I mentioned, relied on West European plants and shortly thereafter added Japan to its list of suppliers. East European sources soon came into the picture as well, but their continuity was subject to an ever changing political climate, since most-favored nation (MFN) status could be granted or revoked each time the political East-West winds changed direction. The most interesting story relating to MFN is our experience with the People's Republic of China. In 1975, I received an invitation to the Chinese Trade Fair to be held in Canton

TABLE I
A 25 YEAR HISTORY: 1962-1975
(PART 1)

ACETO CORPORATION
ANNUAL SALES AND NET INCOME
(In Thousands of Dollars)
1962 - 1975

FISCAL YEAR ENDED JUNE 30	ANNUAL NET SALES	ANNUAL NET INCOME
1975	$50,591	$2,273
1974	33,060	1,277
1973	23,688	534
1972	19,183	442
1971	15,186	402
1970	14,191	363
1969	9,782	245
1968	7,402	163
1967	7,058	145
1966	5,348	104
1965	3,516	68
1964	2,377	46
1963	2,363	42
1962	1,501	40

TABLE I
A 25 YEAR HISTORY: 1976-1986
(PART 2)

ACETO CORPORATION
ANNUAL SALES AND NET INCOME
(In Thousands of Dollars)
1976 - 1986

FISCAL YEAR ENDED JUNE 30	ANNUAL NET SALES	ANNUAL NET INCOME
1986	$105,926	$4,937
1985	93,060	4,796
1984	96,408	4,507
1983	87,988	3,263
1982	91,364	3,142
1981	90,378	2,939
1980	89,119	2,918
1979	79,420	2,818
1978	71,551	2,641
1977	61,561	2,411
1976	46,362	2,383

as Kwangchow) and spent ten days there learning to do business the Chinese way. I placed a few orders for chemicals whose specifications were minimal and sometimes vague. The chemicals had not been either sampled or tested by us: I simply took a gamble. Most of the chemicals proved to be of acceptable quality and eventually were sold into US commerce. Since China in 1975 did not yet have MFN status, I was limited in what I could buy, and had to avoid purchasing many interesting products. Without MFN, duty rates of 50% or more would apply to many chemicals, especially to benzenoid organic intermediates making it economically impossible to import them to the USA. I confined my purchases at this first fair to chemicals that were not subject to the prohibitive rates of duty that were applicable to many Chinese products: these were mostly inorganic chemicals such as iron oxide, phosphorous, barium hydroxide, ferrocyanides and the like. Aceto reached its first goal which was to be recognized by the Chinese as a serious buyer. In each subsequent year, other Aceto executives visited the Canton fair and made some additional purchases. By January of 1980, we decided to intensify our efforts so we sent two executives to the head office at Beijing (formerly called Peking). The Beijing office as national headquarters was responsible for all chemical sales into and out of China. Our strategy at this meeting was to solicit sales agency contract agreements for a number of organic chemicals at prevailing prices, subject to the granting of the MFN status which clearly had to come soon. Imagine the surprise and delight of our executives when they picked-up the morning paper in Peking and found that China had been made an MFN while they were in the air en route to Peking!

As the third world became more and more technically sophisticated, we added India, Korea and Taiwan to our list of supplier countries. I mentioned East European countries; those that would receive MFN status in due course were Poland, Romania and Hungary. Other less developed countries include Spain and Brazil, which were to become sources for specialized products.

MANUFACTURING FACILITIES

While building its import business, Aceto at the same time acquired manufacturing facilities. Our first facility, acquired in 1961, was located in Astoria, Queens, New York City. We converted what had been a solvents and by-products reclaiming company to a small organic chemicals manufacturer. We named this enterprise Aceto Industrial Chemical Corp.

Aceto Industrial later vacated this first plant site having acquired another organic chemical manufacturing company in nearby Long Island City, also in Queens, New York City. We still operate this facility which had been known as Roehr Chemicals, Inc. It manufactures intermediates and chemicals for the pharmaceutical industry. It complements the activities of another plant located in Carlstadt, New Jersey which we acquired in 1969. Arsynco, Inc. as it was renamed, manufactures a line of miscellaneous organics for the pharmaceutical industry, the cosmetic industry, specialities for the paint industry and even includes, among its several other products, a component of solid rocket fuel.

In 1965, we rescued a small company on the verge of bankruptcy by acquiring Pfaltz & Bauer, Inc. (P&B). It was then located in Greenwich Village, in lower Manhattan and had serviced the scientific community since 1900. They were sellers of research chemicals, laboratory equipment

of our other plants. We discontinued the laboratory equipment line at the same time expanding the research chemicals line which P&B had already handled. The facility for this specialized business is now located in Waterbury, Ct. It has its competitors; nearly all offer standard sized packages of pre-packed chemicals. We recently began a campaign to better publicize our capability to custom pack research chemicals to order in any quantity. This avoids environmentally wasteful and costly disposal problems later.

FINANCING

The corporation was started in 1947 on the proverbial shoestring with a few dollars of personal funds. Our goal was to build enough of a capital base to enable us later to raise additional capital. This process was initiated in 1962 when, after 15 years in business, the company became public by selling 40% of its equity to raise a half million dollars. Six years later, we sold additional shares to the public, this time raising an additional $600,000. In 1971, three years later, we raised a further $1,500,000 via a 14 year bond issue.

In 1976, we borrowed $4,000,000 for 14 years at a fixed rate from an insurance company; three years later we increased this borrowing by another $2,000,000. In December 1986, having repaid some of the previous debt, we refinanced by taking another $5,000,000 loan from the same insurance company.

MANAGEMENT

A great deal has been said and written of late about entrepreneurship. As a company founded by entrepreneurs, we had a talent for choosing others with similar capabilities. Twenty-five years ago a young chemical engineer, impatient with the length of the corporate ladder that would have to be climbed at a major corporation, joined our company. He will have to be the judge of the wisdom of that decision, but today, Robert E. Parsont enjoys his role as the company's Executive Vice President. He is, of course, a Board Member as well. Early on, he developed skills in the marketing of organic intermediates and soon was to train his successors.

Our modus operandi is to assign responsibility to a single person for the purchasing, sales and marketing of products in his particular product area. An individual capable of making what prove to be correct purchasing and marketing decisions will share in the profits resulting from these decisions.

We operate on a bonus system for all executives, including the middle managers in each department, who themselves have many opportunities to demonstrate their creativeness and talent within the framework of our "loose rein" management style.

DISTRIBUTION

There is always the question of whether distribution should be by geography or by product. Since one of our strengths is our focus on product knowledge, we distribute by product. Our chemicals are distributed by individual departments, which I will discuss in detail.

DISTRIBUTION - INTERMEDIATES DEPARTMENT

Historically, our Intermediates Department has been the backbone of our business, and remains so. Europe, Japan and China supply many of the products as intermediates for both the color and pharmaceutical industries. The Benzene Derivatives we supply include Aromatic amines and Chlorinated aromatic amines. Naphthalene derivatives include Amino Naphthol Sulfonic Acids (better known as H-Acid, J-Acid and Gamma Acid). Dyestuff Intermediates include Diamino Stilbene Disulfonic Acid and disperse dye intermediates such as 6-Nitro-2-Amino-Benzothiazole and para Anisidine. Pigments, dyes, color photography, printing inks and special coatings are some of the end products for intermediates they sell.

Pharmaceutical Intermediates include Anisidines, Acetoacetic Esters and Dichloro Anilines. Pharmaceutical Intermediates for antibiotic side chains include Tetrazole Acetic and Sulfonic Acids.

The Intermediates Department is staffed with a Senior Vice President, a Vice President and additional products managers and associates. One products manager handles intermediates exclusively for the pharmaceutical industry.

DISTRIBUTION - BULK PHARMACEUTICALS DEPARTMENT

Our Pharmaceutical Department is staffed by a Vice President and a products manager. Products which they sell are those for which patents have expired and are marketed to both the patent holding innovators as well as to generic drug manufacturers. The older products in this line include: Acetaminophen, Lidocaine, Methocarbamol and Phenolphtalein. More recent additions to the line include: Propranolol Hydrochloride, Verapamil Hydrochloride, Vinca Alkaloids, namely Vinblastine Sulfate and Vincristine Sulfate. This department also sells the major product of our Long Island plant, namely Phenylpropanolamine as well as its precursors.

DISTRIBUTION - INDUSTRIAL CHEMICALS DEPARTMENT

Our Industrial Chemicals Department, handles a miscellaneous group of products. It is headed by a Vice President and a group of assistant vice presidents, product managers and associates. One of this group handles paint additives such as anti-skinning agents, UV photo-initiators used as curing agents and quaternary ammonium compounds or "quats". Others handle chemicals for the plastics and rubber industries such as catalysts, anti-static additives, UV absorbers, anti-oxidants, additives and specialty rubbers. Still others handle specialty products such as tannic acid for the brewing industry, food chemicals and electronic chemical specialties. Esters, aldehydes and ketones for the flavor and fragrance field also fall under this group.

In addition, the Industrial Chemicals group handles the marketing of most of the products manufactured in our own plants. The marketing of Phenlypropanolamine is more complicated and is a joint marketing effort together with the Pharmaceuticals Department.

DISTRIBUTION - AGRICULTURAL CHEMICALS DEPARTMENT

Parallelling the growth of our organic chemical lines is the story of our Agricultural Chemicals Subsidiary. In the 1960's, the US Department of Agriculture had been charged with the responsibility for registration of pesticides. Their primary interest was in assisting and protecting the farmer. It was a simple matter for us as a company to obtain pesticide labels by registering dozens of agricultural chemicals for which we either had or saw a potential to obtain sources a few years down the road when patents were due to expire. In 1972, under sweeping changes mandated by a new Federal law, the EPA took over the label registration function previously held by the US Department of Agriculture and all outstanding labels then valid were automatically transferred. Subsequently, further changes in the law have increased the EPA's scrutiny of these labels making continued registration more extensive, more complicated, and very costly. The data call-in regulations require that the EPA on a programmed, phased-in basis, request additional new data on oncogenicity, teratogenicity, acute and chronic toxicity which means substantial and costly testing. In many cases these extra costs cannot be passed on to the farmer. We must from time to time reevaluate our postion with respect to the labels we hold and either conduct and absorb the testing costs or eventually abandon the sale of a product. The economics of the particular product determine the course of action.

Agricultural Chemicals are marketed by a subsidiary corporation, Aceto Agricultural Chemicals Corp. Its President and Vice President together handle all the commercial affairs of the company. The President who will celebrate his 30th anniversary with Aceto this year is another Aceto success story. In 1957, he came to work as a sample and small order packer. While at this job he questioned our pricing policy with respect to the sale of chemicals in small quantities to pharmacies which were among the orders he was packing. His question was a signal to us that he had a good business sense. Given the opportunity soon thereafter he demonstrated phenomenal success in selling surplus lots: everything from a parcel of 50 empty gas cylinders to a boat load of surplus World War II explosives. This man became our agricultural chemicals manager when an opening occurred and today, continues as the head of this profit center.

DISTRIBUTION - IN CONCLUSION

As I have already said, we sell nationally. Our products are sold, for the most part, directly to the consuming industries. Our marketing people themselves call on customers or prospects throughout the USA. We own no aircraft, but our marketer's air travel is extensive, covering the entire USA and parts of Canada as well. On the procurement side, we cover the world. Here our company's headquarters location is ideal: 5 minutes from New York's LaGuardia airport; 15 minutes from JFK and next door to Shea Stadium and the Mets.

When two or more departments sell different products to the same customer (pharmaceutical and intermediates departments, for example), each normally calls on the account separately. However, in geographically distant follow-up calls, our policy is to ask one manager to inquire about another manager's products. We encourage free exchange of information among all our sales and marketing people so that one department knows what the others are doing.

Our suppliers located abroad are visited several times each year by senior management people, department heads and products managers. Foreign travel is extensive to the countries of Europe and East Asia.

Some few products are sold through local area distributors. We use distributors only for those products that are sold to a large number of customers whose individual purchases are small, making it uneconomical for us to service them directly. Paint additives are examples as are a few products in our agricultural chemicals line.

EXPORT SALES

While Aceto's basic business is marketing in the USA, we do some exporting as well and even do an occasional totally off-shore transaction. We have established subsidiaries to handle such sales to avail ourselves of tax and other economies.

IN CONCLUSION

In summary, the success of our company has been due to its people. They are bright, quick learners, they are versatile and capable of shifting gears easily, they are willing to accept the economic and technological decline of certain older products by redirecting their efforts towards newer ones. They are quick to recognize market opportunities with newer products.

There is of course, a sense of competition among our departments. But it is recognized that each has its rises and declines, and usually not in the same year. So good news in one area may be offset by news of a serious problem elsewhere and corporately they usually balance out, as has been the case over 30 years.

Nearly all of our executives and managers including the founders, began their careers with the company when in their mid-twenties. Our managers enjoy their personal contact with both suppliers and customers - the exhilaration of successful commercial transactions. The feeling that it is fun to work for Aceto, accounts in part, for our low executive turnover. As to compensation, we pay bonuses, in addition to salary, award stock options and have a profit sharing plan as well. We have an annual sales meeting in early July, at a retreat away from the office. The meeting held just after the close of our fiscal year to discuss the past and future year enhances the spirit of cooperation and camaraderie which pervades our staff.

Executives rarely leave Aceto, even for retirement. Our oldest employee, died last year having remained active past the age of 91 (he had been with Pfaltz & Bauer when we acquired this subsidiary in 1965). At the time of our acquisition he was 70 and would retire soon, we thought. Others at Aceto may be inclined to follow in his footsteps; perhaps even I will be one of them.

APPENDIX F

Reprinted from BARRON'S

April 7, 1997

SIZING UP SMALL CAPS

Clever Formula

BY RHONDA BRAMMER • It was 1947, a remarkable year. A little device that was to change the world, the transistor, was invented by scientists at Bell Labs. For the first time, a U.S. plane flew faster than the speed of sound. Jackie Robinson broke the color barrier in Major League baseball. Henry Ford died and so did Al Capone. Two strikingly different accounts of what was then recent history were published: *The Diary of Anne Frank* and Hugh Trevor-Roper's *The Last Days of Hitler*. Secretary of State George Marshall, the great commander in the Second World War, unfurled his blueprint for rebuilding war-torn Europe, the unprecedented and historic Marshall Plan.

Like all years, of course, memorable or middling, 1947 was also filled with a myriad of everyday happenings of interest only to the people involved in them. For example, it was the year two young chemical engineers from City College of New York, Arnold Frankel and Seymour Mann, launched a venture called Aceto Chemical. Indeed, even 50 years later, this Lake Success, N.Y.-based firm, though a thriving enterprise, hardly rings a bell except to the people who run it, work for it, do business with it or own its shares. A marketer of fine and industrial chemicals, **Aceto** boasts sales of less than $200 million, a stock-market value of only $65 million and no Wall Street coverage – none, zippo.

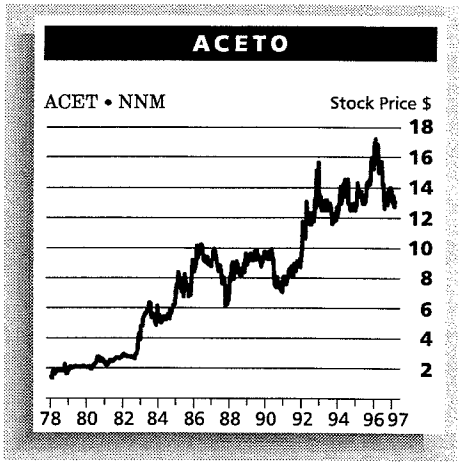
Despite its lack of celebrity, notoriety or even modest recognition, the company that Frankel and Mann founded has, in its own quiet way, done well. Profitable every year since coming public in 1961, it has posted higher earnings in 33 of the last 35 years.

"We conceived the idea of going into the surplus-chemical business," recalls 75-year-old Arnold Frankel, who will step down as Aceto's chief executive at the end of June. A small man with neatly combed gray hair and wire-rimmed glasses, Frankel sits in the living room of his Upper East Side apartment, where he has a grand view of any barge or tugboat making its way up the East River. "At the time, it was a dirty word – garbage! Now it's called 'recycling – environmental enhancement.'"

Frankel and Mann made the rounds of paint and varnish makers in Brooklyn and Long Island City, bought up surplus solvents and chemicals – 20 drums of this, 30 drums of that – and shipped the stuff to Europe. They bought off-grade aniline and sold "thousands of drums" to Chinese factories making sulphur black, a dye for textiles. Drug companies like Bristol-Myers and Eli Lilly were "awash in methyl alcohol," Frankel remembers, "a by-product of making penicillin." Though it reeked of the drug, this methanol worked just fine as antifreeze, then in short supply. Frankel, whose first job was in a TNT plant, speaks softly and smiles only slightly as he recounts the almost universal response to his off-grade antifreeze. "This stuff is awful! . . . Do you have any more?"

From such humble beginnings, Aceto has evolved into a purveyor of specialized chemicals from around the globe, the exclusive U.S. distributor for European companies like Courtaulds and Hickson & Welch.

Aceto supplies chemicals and dyes for fibers, photography and printing to customers like Kodak, Crompton & Knowles and Dainippon Ink. Its specialty industrial chemicals are used for everything from clarifying beer to keeping the paint on your car. Aceto's most profitable agricultural product is isopropyl-m-chloro phenyl carbamate – Spud-Nic, for short – which keeps potatoes from sprouting. Its fastest-growing markets include chemicals for food supplements and drugs. Not only does the company supply bulk pharmaceuticals for generics, it also sells complex organic chemicals used in making Merck's antihypertensives, Cozaar and Hyzaar; Bristol-Myers's antidepressant, Serzone; and Procter & Gamble's over-the-counter pain reliever, Aleve, to name but a few.



Aceto currently buys over half of its chemicals from Europe and another 35%-40% from more than 100 companies in Asia and India.

But it is the mission of 51-year-old Leonard Schwartz, Aceto's president, who officially assumes Frankel's title of chief exec this summer, to further strengthen Aceto's global presence – particularly in developing countries like China, where chemical factories are springing up overnight, thanks to low-cost labor and less-than-stringent environmental laws.

"If there are no laws," observes Schwartz matter-of-factly, "you can't break them." A 28-year veteran of Aceto, Schwartz is 6-feet-2, a rapid-fire talker who first visited China in 1976. "In Jiangsu – maybe the size of New Jersey – you probably have 1,000 chemical factories," he relates. "Everybody is flocking to China – it makes you think of California during the Gold Rush."

Beta-naphthol, a key ingredient in Roche's anti-inflammatory drugs, Naprosyn and Anaprox, and the aforementioned Procter & Gamble's Aleve, comes

(over please)

from China. "India may make a little, maybe Russia," says Schwartz, "but China is the world's largest supplier by far." And Aceto is China's biggest buyer of beta-naphthol, purchasing about 13% of the country's total production.

While Frankel is reserved and exacting – he wrote his thesis, after all, on derivatives of itaconic acid – Schwartz is outgoing and talkative, bright, but with the charm of a salesman. A chemistry graduate of Adelphi University, he makes no secret that school was "not the high point" of his life, that he wants to "build businesses." He owns a house on 125 acres in Pennsylvania, has six kids, considered adopting a Chinese baby girl as the seventh, cooks great Chinese and Thai food and got the idea for his distinctive "extended sideburns" some 22 years ago from a guy at a paint company in Detroit.

Though a self-proclaimed tightwad, Schwartz has or is opening offices in Shanghai, Brazil and Canada – allowing Aceto to sell Chinese and European chemicals directly into these lucrative markets.

Over a turkey club sandwich, Schwartz gives a whirlwind lecture on bromine, explaining how most of it comes from deep wells in this country or the Dead Sea and how U.S. and Israeli suppliers have a virtual monopoly on selling high-priced bromine derivatives to pharmaceutical companies. He takes a deep breath. "But I found bromine in China." Specifically, Schwartz discovered a Chinese factory making low-tech sodium bromate, a conditioning agent for flour, but now he's flirting with the idea of securing the technology for the Chinese to produce bromine pharmaceutical intermediates – something like 3-bromo propionic acid, he suggests – and then he could offer Merck or Lilly or Upjohn a discount, perhaps 15%.

In contrast to this buzz of corporate activity, Aceto's stock has been notably quiescent. Less than a year ago, it sold at 17½, but on Friday it closed at 12¾. The shares are down because sales and earnings are down.

In the fiscal first half, ended December, on 14% lower sales, Aceto reported 42 cents a share, compared with 62 cents in the year-earlier period.

What went wrong?

Several things, and all at once.

First off, one-time charges associated with a recently sold subsidiary and a revised estimate for remediation of a former manufacturing site in Carlstadt, N.J., cost the company 13 cents a share. Sales of ag chemicals were weak, price pressures heated up in color intermediates, a major brewer switched to a cheaper clarifying agent and sales of verapamil to a maker of generic hypertensives dropped sharply.

Still, the fiscal year ending in June won't be so bad. Exclusive of extraordinary charges, sales and earnings will be off about 10%, according to both Schwartz and his chief financial man, Don Horowitz. Which means the company should report on the order of $1.20 a share, versus last year's $1.34.

The good news?

Aceto's last small manufacturing facility, famous for the day in 1991 when it rained a yellow dye used in Clairol hair coloring on Carlstadt cars and houses, is closed. "The dye wasn't toxic," explains Horowitz, who has been with the company for 25 years, "or you wouldn't be talking to us." But it was enough to get Aceto out of manufacturing.

Though earnings were lower in the March quarter just ended, comparisons will turn positive in the June quarter, Horowitz says. And though neither offer precise forecasts, both Horowitz and Schwartz believe that fiscal '98 will show an improvement over '97.

Meanwhile, at 12¾, Aceto shares are selling at 11 times trailing earnings, about a third of sales and right at book value. Not terribly steep for a steadily growing company that earned an average of 8% on assets over the past decade. Book value, moreover, is about half cash and securities. The company continues to use its ample cash flow to repurchase its own shares.

As Schwartz puts it, "What else are we going to do with the money?" ■