

PERSONAL RESUME

John E. Drejza - 226030

Hired: June 10, 1952

Education: BSME, Clarkson College of Technology 1952

June 1952 - Hired by IBM as Jr. Engineer

Temporarily assigned to IBM Standards group waiting for Engineering Training Program to start first of July, 1952.

Aug 1952 - Recalled to active duty with U.S. Army as an officer in Ordinance Corps. Recall was an error - discharged after one year.

Aug 1953 - Joined next Engineering Training Program at same point I left previous year's program. Training was full time until 1Q 1954.

1Q 1954 - Joined J.M. Cunningham's department

Assigned to technology activities to study document handling (feeding, transporting, stacking, etc.) mechanisms. Designed, modeled and evaluated complete feasibility machines involving two different approaches for document handling. Published three technical reports on these units.

Performed similiar activities on a unitized forms feed carriage as a back-up to the mechanism released for the 720-730 Matrix printers.

1956

Census Machine

- Mechanical, design, build and debug responsibility for a reader to be built for the U.S. Government to use in 1960 census. The device was capable of feed, reading, transporting, sorting and stacking in one of two pockets, 250 sheets per minute of mark-sensed paper. Stayed with program to point where first development machine was functioning and we were making improvements by E.C. Program was completed by another group when our group was assigned to the 1403 printer program. The U.S. Government dropped the census machine program. Only one machine was complete. It was sold to the Canadian government and successfully used for one census.

May 1958 - 1403-2 Printer

Assigned design, and release to production of the hammer unit. Started from technology model which reflected magnetic and electrical parameters and a mechanical concept provided by B. Greenblott. Designed complete package including all serviceability implications. Conducted extensive analysis activity on the functional mechanism to provide the design for the hammer dynamic systems that went to production. p3 1

- May 1958 - Technical breakthroughs were made with the hammer
(cont'd) suspension, damping and energy control systems design. The hammer suspension system design was developed with several people supporting my activities. I was issued a patent for the hammer energy control system. The idea solved a severe ribbon wear problem. Life was improved from 100-200K lines to greater than 1M lines per ribbon.
- Extensive statistical dimensioning was applied to a mechanical device for the first time in IBM history. It was instrumental in meeting cost targets.
- I provided most of the product test support and early production debug activity associated with the hammer unit.
- 1403-2
- 1Q 1960 - Numeric Printer - Design leader, analysis, SPA activity, release to production. Modified 1403-2 that printed at 1285 LPM with 16 character set. Design involved hammer unit modifications and a package for series resistors, thermistors and their cooling.
- Dec 1960 High Speed Hammer Unit
- Manager/Design Leader of Multi-lever high speed hammer unit. Modified 1403-2 hammer unit design that was basis for 1100 LPM final design.
- Concept was my idea. Design was abandoned as J.M. Cunningham's follow-on was chosen for better reliability and manufacturing using the Multi-lever concept.
- July 1961 - Selective tape lister on 1403-2 - Managed design, testing and release to production of J.M. Cunningham's concept for feeding eight tapes that printed information at 1285 LPM relative to checks being sorted into seven pockets plus a master tape.
- 1963 - 1403-3 - 1100 LPM PTR - Managed design, analysis, test and release to production of J.M. Cunningham's concept for high speed printer. Primarily new hammer unit and new print cartridge.
- 1965 - 1403-N1 - Manage development, testing and release to production of J. M. Cunningham's concept for automated covers, NR65 acoustics, improved stacking.
- About 1965-6 Spent significant overtime and on-the-job time with extra-curricular analysis and other activity supporting "Shepard" patent suit.

1403 N1 - Selective Tape Lister

1966 Managed, concept and development, testing and release to production of an improved (Cost, RAS, Customer Acceptance) selective tape lister and a special stacker to accept the eight tapes.

3211 Printer

Late 1966 Manage hammer unit and hydraulic carriage design group and associated analysis activities.

3211 Printer

1967 to 4Q 1970 Engineering Manager on complete machine and packaging for 3811.

Picked-up responsibility at time machine was supposed to be ready to enter announce test for first time. Machine had many significant problems requiring major redesign. Changes involved hammer/type redesign because of interaction, sensing for ribbon foldover, type breakage and wear, carriage drive from hydraulics to DC servo, oscillating platen, stacker, etc.

Left program about a year after Ann.

4Q 1970
to
3Q 1971

Virgo Program - Engineering manager of program to extend Lynx belt technology to 300 and 600 LPM with improved RAS, cost, and packaging. Included many features such as auto load, burst, auto set-up, improved print quality, NR55, others.

Hammer unit for Lynx C & D printer (base for Nagold 1/2) was developed during this program. A 600 LPM feasibility printer with auto load, and burst features was built and operated to point of proving feasibility and good print quality.

4Q 1971
to
1Q 1972

SPICA Program

Engineering manager for Spica print wheel and print hammer mechanism development.

Assignment started with a task force to develop low cost print wheel. Bullet wheel design evolved.

Hammer unit activity was to make a Joe Pawletko design for a high speed hammer manufacturable at a low cost.

This activity was carried to point where parts were being built for Announce Test machines.

2Q 1972
to
3Q 1974

Lynx Program

Assigned Engineering manager of this program while it was part-way through Announce test - open ended. Completed announce activity along with initiation of major redesign program to get cost to objective. Took program through release and early production. Also took control of cover design from Kingston (with reluctance on part of my Mgt) which was in trouble because it was very late and had severe design problems. This activity was brought back into schedule by FCS with little additional resources.

4Q 1974
to
1Q 1976

Castor Program

Engineering manager for 60 CPS high quality, low-cost printer. Device used linear stepper motor for translating head with stepper motor driven daisy wheel. Also responsible to develop print unit for desk top terminal being developed in Japan which used two print mechanisms of this design.

Features included two-direction carriage, two-direction print, excellent print quality, 10 and 12 pitch, 3 kinds of ribbon, etc.

Responsibility was to pick up feasibility design from technology and release mechanism, covers, native interface to production. Took program to point where we had first two SPA models functional and had shipped several functional print units to Raleigh for integration and desk top terminal. Had manufacturing process development for linear stepper well underway.

Left program while SPA machines were being assembled and debugged.

1Q 1976
to
2Q 1977

SPICA Program (Again)

Assigned Engineering manager of program.

Assigned to release bonded print wheel to production and to make E.C.'s to three machine models to bring CEH to spec. CEH was running three times spec with 33% of the CEH due to broken print wheels. Print wheel design plan was redirected to swaged type after about two months into the program, because bonded wheel was costly and manufacturability was questionable.

Left the program with CEH only being exceeded by broken wheel problem. Field population of the wheels had just started. First two months of experience indicated the new wheel design was performing better than plan.

Also co-invented a inkroll lift-off mechanism which contributed significantly to solving a severe inkroll life problem.

Also developed a ribbon feed for passbook printers (They said it couldn't be done) for AMEA to solve a severe customer complaint problem.

2Q 1977
to
1Q 1978

- Impact Printers P.E., Holmes II

Manager of all line printers (except 5211) and terminal printer product engineering.

Major activity was to reduce CEH on 3203-4 and organize the Drachen group for remote P.E. with special consideration for building some early machines on a very short schedule.

Activity resulted in reducing 3203 CEH from about 5 hours to 4 hours with plans in place to get to spec in less than a year.

The Drachen program produced the early machines on schedule and had the program operating with about one-half the headcount originally projected for the program.

Holmes II program was to develop CSA for Kingston to handle passbook and journal.

Other significant accomplishments consisted of getting the programming plan in place for train clearing and solving the "Label Printing" problem on the 3203 with a \$50 parts cost RPQ rather than a \$2200 cost design implemented by Boeblingen.

Nagold I & II, Holmes II, Color Accent Printer

1Q 1978 - Assigned as Engineering manager - Nagold I Mechanical
to and program office for Nagold I and Nagold II electronics.
3Q 1978
Completed Phase II of Nagold, continued Holmes II, initiated
plan for Accent Color

3 & 4Q
1978 Out III

Nagold I, II, III

Dec 1978 Assigned Engineering manager for Nagold I & II and
to Electronics for Nagold III.
Present

PROMOTIONS

12/55 Associate Engineer (807)
12/16/60 Project Engineer (805)
1/1/63 Development Engineer (1803)
1/20/67 Sr. Engineer Manager (180)

AWARDS

3rd Level Invention (9 filed, 14 published)
Outstanding Contribution Award - \$2500
-3211 Development & Release
Informal Award (\$1000 or \$1500) on Lynx Program
1 Cost Effectiveness Award - Pencil Sharpener
(50% of 771K Savings)
1 DFT (Color Ribbon)

PATENTS - J. DREJZA

<u>NO.</u>	<u>DATE ISSUED</u>	<u>NAME</u>	<u>USAGE</u>
3,144,821	8/8/64	PRINT FORCE CONTROL	1403-2,3, 3211
3,500,081	3/10/70	LOW INERTIA STEPPER MOTOR	3211 BACK-UP
3,576,164	4/27/71	INCREMENTING PLATEN	3211
3,585,927	6/22/71	HIGH PERFORMANCE PRINT MAGNET	3211
3,638,565	2/1/72	PRINT TYPE CARRIER	NOT USED
3,640,217	2/8/72	PRINT HAMMER CONTROL-PIVOT TYPE	3211 BACK-UP
3,735,696	5/29/73	FRONT BACK PRINTER	NOT USED (VIRGO)
3,848,722	12/4/74	PRINT DISK ASM FOR PRINTER	SPICA
4,106,873	11/21/78	PRINT DISK INKING MECHANISM	SPICA

TECHNICAL DISCLOSURES

3/63	PRINTER - PUNCH APPARTUS	NOT USED
5/70	STACKER FOR HIGH-SPEED OPERATION	3211 BACK-UP
5/70	FLIGHT TIME TRANSDUCER	3211
4/72	REFOLD REMINDER STACKER	NOT USED
8/72	RIBBON COMPENSATING INTERPOSER	3211
6/73	RATCHET DRIVEN TRACTOR	NOT USED (VIRGO)
2/74	ACTIVE SUPPORT DEVICE FOR PRIME MOVERS	NOT USED
4/74	LOW COST TYPE WHEEL	SPICA BACK-UP
5/74	COIL AND RESIDUAL SYSTEM	SPICA
12/74	CONTINUOUS FORMS FEED	NOT USED (VIRGO)
4/75	FRONT AND BACK PRINTING ON DOCUMENTS	NOT USED
5/76	PRINT IMPRESSION CONTROL DEVICE	CASTOR
11/76	RECORD SHEET DEFLECTOR	CASTOR - NOT USED
4/77	TYPE WHEEL BRUSH	SPICA - NOT USED
6/80	ELELTROEROSION PEN	K/N
6/80	ELELTROEROSION DATA STORAGE SYSTEM	K/N

3/13/79

3 DISCLOSURES PENDING