

News in Perspective

Control Data's manufacturing arrangement with Romania may be the first of several thrusts into the East Europe bloc, page 112, including deals in Czechoslovakia and the USSR, where it's rumored there has been talk about a Cybernet-type network...

Our most recent visit with Ross Perot finds the chairman of EDS continuing his fiery assaults in a multitude of crusades, including the saving of Wall Street, page 114...

MIT's computer science head Robert Fano speaks out against information networks, page 120, saying they shouldn't be allowed to spread until we've developed adequate means for protecting privacy...

Six months later, Los Angeles is about to get a freeway traffic warning system under way, page 127. Our report tells how the Sigma 5-based system works...

Sen. Philip Hart's Industrial Reorganization bill was up for hearings this spring, page 129. Some testimony indicated it's the one hope for putting vigor into the Justice Dept.'s pursuit of IBM...

Addressograph Multi-graph's new Data Systems Div. shoots for the lucrative--but crowded--data transaction market, page 132.

Mainframers

National Cash Register: "No More Apples and Oranges All Mixed Up"

The National Cash Register Company spent \$2 million in a 2½-year ad campaign to convince the world that "NCR Means Computers." But many who studied its recent financial reports seriously doubted its staying power in the electronic age.

Committed to computers and electronics, NCR in 1970 still did more than 80% of its domestic manufacturing in the mechanical-age plants that surround world headquarters in Dayton, Ohio, where it also paid the high labor rates of the heavily unionized city. The problem grew to a disaster when a strike at the Dayton operations in late '71 virtually paralyzed the company. Its already-dipping profit tumbled to \$2 million from \$36 million in '70. In 1972 it reported a \$60 million loss. Century series cpu's ready for shipment from a modern plant in Rancho Bernardo near San Diego were held up because the printers were made in Dayton. Shipments of cash registers from overseas plants stalled because 20% of the key parts came out of Dayton.

"In the electronics business, large factories are not normal," says president William S. Anderson, called in a year ago this month to direct a massive reorganization of the cash register empire built by the great John H. Patterson with the help, incidentally, of a supersalesman named Thomas J. Watson. Anderson, an Englishman born in China who was chairman of NCR's fabulously profitable Japan subsidiary, was a surprise selection for the No. 2 job at NCR, but those who have watched his performance so far heartily agree with Anderson's own assessment that he was the best man for the job (see accompanying story).

Actually, a reorganization plan had been in the works since 1970. It was the new president's job to set it in motion. And it's being done at breakneck speed.

Says chairman Robert S. Oelman: "We would have preferred a more gradual transition, but there has not been time for that. It has been a case of moving fast or falling behind."

Razing the past

Later this spring bulldozers will rumble down Main St. south of downtown Dayton, pass the rolling, grassy slopes of Sugar Farm and the carefully mani-

cured mall outside corporate headquarters and thunder to their final destination: the first of 10 factory buildings to be ripped down. The event will launch an 18-month modernization and consolidation program to reduce factory floor space at Dayton to 2,600,000 square feet from 4,200,000 at a cost of \$4 million.

Since last summer the Dayton work force has been trimmed by some 4,000, bringing employment down to about 11,000 from a high of 20,000 in 1969 when the plant had its finger in so many product pies. (NCR's employment worldwide is 85,000.) Now it houses corporate headquarters, the manufacture of some mechanical cash registers, and the Financial Systems Div. whose principal product is the model 270 terminal for banks.

Five other plants, outside of Dayton and once operated as branches with corporate and local staffs, have been turned into full-fledged divisions responsible for their own engineering, marketing--and profits. Says Anderson of this new arrangement: "You're not getting apples and oranges all mixed up. You're just making apples. The manager has total responsibility, not only for the manufacturing, but also for the engineering. He'll have the software people as well, and everybody will be there instead of being here, there, and everywhere else."

In Cambridge, Ohio, some 90 miles northeast, NCR's Retail Systems Div. "is going full blast on the 280," the department store point-of-sale terminal for which the company late this winter received a whopping \$60 million order from Montgomery Ward. In Wichita, the Accounting Computer Div. is making NCR's new 399 accounting machine and when a new plant is completed, will also manufacture the controller--the 605 minicomputer it now buys from the Data Processing Div. in Rancho Bernardo. Its Data Entry Div. is housed in Ithaca, N.Y., and postal systems and other products are being made in Millsboro, Del., which has been named the Delaware Div.

The swing's the thing

Anderson arrived at NCR just as the company was closing a major cost-cutting deal with Control Data Corp. in which NCR sold its Hawthorne,

Calif., disc drive facility to CDC for \$20.5 million and agreed to buy the equipment from CDC for 20 years. The two firms also formed a jointly owned company to make printers, tape, and card readers for each other. Called Computer Peripherals, Inc., it has been a rousing success, according to Ander-

son, operating profitably in less than a year at an annual rate of \$100 million in shipments.

But he says the real long-term benefits of the agreement will come "when we finally work out what we called the swing computer idea for bridging the gap between our small, medium, and

large computers to their super-large systems," a move that would allow users of NCR's future medium-size machines to swing up to larger systems, when the need arose, without heavy conversion costs. The companies are developing a common operating system. Anderson denies reports that the

NCR's Anderson: "If I Didn't Do It, Who Would?"

"That most American of companies has gotten an Englishman as its operating head," exclaimed *Forbes* magazine in March.

"Mr. Anderson took his appointment coolly, rather in the manner of the actor James Mason to whom he bears a striking resemblance," said a *New York Times* reporter in February.

"He's a tough new face in town," said another report on William S. Anderson, the 54-year-old president of the National Cash Register Company who a year ago this month leap-frogged over some 30 NCR top executives for the job of turning around a cash register company groping for profitability in the computer age.

While his selection for the No. 2 spot at NCR was a surprise to many, it was a logical choice. NCR was forced for survival into a shotgun wedding with computers, but the dowry consisted of more than 4 million square feet of antiquated mechanical-age plants in Dayton, Ohio, that had to be kept busy. Meanwhile, in Japan, Anderson within a dozen years had increased the profits of NCR's subsidiary 10 times, while keeping employment from rising more than three times.

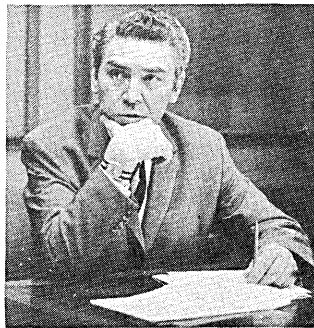
Born in Shanghai of English parents, Anderson first heard of NCR while a Japanese prisoner of war with George Haynes, then manager of NCR's Japan operation and now vice president and group executive in charge of international operations. Of Anderson's 28-year career with NCR, Haynes said "he's gone nowhere but up. He likes to win, and he has what we call a magic touch."

Anderson, urbane—perhaps with the looks of a James Mason, but with the rich, vocal tones of a Lorne Greene—denies the magic touch. "I think I've been lucky," he once told a reporter.

The tall, dark-haired British citizen was reluctant to leave Japan for Dayton, but he makes it clear it wasn't because he doubted his ability to turn the company around. Asked in an interview this spring in

Anderson's ninth-floor office in Dayton if he felt he was qualified, he answered with a gusty laugh: "Right or wrong, I've always believed myself to be superior to anybody else in this company. I don't think you can be successful in business unless you have confidence in yourself.

"So while I don't go around talking that way, in my own heart of hearts, I have confidence in myself



WILLIAM S. ANDERSON

and my ability, and I know I'm the best man in the company. The soul searching was whether I wanted to take on the extra burden when I had a pretty good life in the Far East where everything was going my way and the company was running on greased wheels.

Who would?

"But when I looked around and thought of the alternative—that if I didn't do it, who would? Who could?—I decided I'd better do it. There was nobody better qualified than I. If I really loved the company, as I do, and if I felt that I owed the company something for what it has given me in 27 years, then I'd better repay the company in service."

He was not surprised by his selection. "Friends all around the world had been asking me, 'when are you going to go to Dayton and do something for the good of the company?' I guess they appealed to my egotism."

He operates with a first-hand knowledge of his markets. Since coming to Dayton, he's traveled to every country where NCR has a

branch office, except Africa. His routine on a trip is to meet in the morning with the staff and drop in on customers in the afternoon. "His decisions are popular because we know he's been out on the firing line," said an aide recently.

In Dayton, Anderson comes in late by factory standards—usually 35 minutes after the whistle blows at 8 a.m. He doesn't like committee decisions and spends much of his time meeting individually with his staff, usually letting the paper work slip by and thereby often having to violate a personal rule against taking work home. Much of the homework is done on weekends, and NCR executives cringe on Mondays at the flood of projects for them that Anderson has crammed into his dictating machine.

Anderson's takeover has been smooth, considering the magnitude of the job. All but three top officers in the company remain in their posts, and despite the 4,000 layoffs in Dayton since he took over, "the Chamber of Commerce is delighted."

"The business community was worried that NCR was going to get sick and die," he said. "So when they heard that the company was going to be reorganized, that somebody was going to come in and save it, it was like a knight on a white charger in shining armor. The press has been apprehensive, but we've allayed their fears and we've assured them that Dayton will always be NCR's headquarters, as far ahead as we can see."

Of his characterization as a "tough new face in town," not tied to the Middle America traditions of the big Dayton factory, Anderson prefers a different definition—"a fresh look."

"Although not entirely fresh. I know the problems of the company. I know the areas that needed improvement. But, on the other hand, I wasn't so closely involved that I would be afraid to do something. I certainly will not be tied to tradition and precedent. The not-invented-here factor would not apply to me."

swing project is stalled, noting that there never was a schedule. "We're working very closely and very well, and we've had no friction at all," he says.

Although the company installed 1,000 Century series computer systems last year, for the third year in a row, the business still isn't profitable partly because for every two Century machines shipped in '72, one replaced a smaller model that came off lease and was returned to the rental pool. But Anderson hastily adds that the operation is close to being profitable, although NCR doesn't have accurate figures because the computer business is so mixed with the company's other business.

For instance, NCR operates 85 data centers worldwide, sells optical font and punched paper tape cash registers, "purchased by people who wanted to use our data centers or to read into their computers, including our own." So, he asks "would we have sold these cash registers if we didn't have the Century or the 315 (the Century's predecessor)? The answer is no." In Japan, he added, NCR's eight data centers produced a profit of more than \$1 million last year. All related computer business netted the company \$4-5 million in Japan, and Anderson thinks the same applies to operations in England and Germany.

"If you take only the sale of processors and immediate peripherals identified with them and exclude technical services, supplies, data centers, and all the point-of-transaction products, then I'd say the computer business hasn't been all that profitable. Not yet. It's close to it, but not yet."

The company has 3,500 installed Century computers and 550 of the 315 series, the medium-size line introduced in 1962. Rental and sales income rose to \$251 million last year, an increase of \$37 million over '71.

Slow to move

By its own admission, NCR has been slow to penetrate with new products those markets where it traditionally has been strong. With Burroughs, it once was the major supplier of equipment to banks, but it failed to capitalize on the advantage with electronic products, even though in Japan's Sumitomo Bank it claims to have installed the world's largest on-line system where 15 Century 300s are used to handle some 2 million transactions a day. It's a feat that pleases the tall, outspoken Anderson, who has lived in the Far East all his life. "We're talking with all the

banks now. People say, 'how can you compete with IBM?' Well, we've competed with IBM in Japan and we're beating them in know-how. IBM doesn't have an installation in Japan as complete as Sumitomo. We have the know-how. Whether we have applied it as we should have is another question."

NCR's computer know-how will in large measure contribute to the success of its accounting and retail systems, which it's announced in rapid-fire succession during the past 12 months. Although late with an electronic point-of-sale device, the company now has almost caught up with Singer Co. following the big Montgomery Ward order for its 280 system for department stores (see April, p. 135), and Anderson said the company expects to capture 60% of the retail market within three years. Earlier this year it introduced the model 250 free-standing electronic cash register for supermarkets and earlier this month displayed its 255 computer-based system at a supermarket convention in Dallas.

Watching the giant

With all other suppliers in the multi-billion-dollar retail market, NCR closely watches the moves of giant IBM. Last month, of five product codes submitted to a grocery industry standardization committee, the code most closely resembling IBM's submission was the one selected (see p. 136).

"We would be foolish not to be apprehensive of IBM's entry to this market," Anderson says. "IBM is so rich it could enter any market it wanted. It could build automobiles if it wanted to compete against General Motors. Whether they are ready to enter a new field now, with the Justice Dept. after them, I don't know. It's a case of (a) whether they're ready and (b) if they are, whether they're ready to make an announcement that they're going into a new field—the retail field. But we're certainly aware that they may."

If IBM enters, it's in for a tough fight in a ballgame where NCR has the market force and the track record. "In this business people have always felt they wanted to do business with NCR. And why not? For 80-odd years we have served the retail industry. Which retail industry hasn't been served well by NCR over the years? We're going to look after our retail industry."

When Anderson became president a year ago, just after NCR had suffered back-to-back quarterly losses, a Wall Street computer industry analyst said of NCR's woes, "it's too bad that he can't bring his Japanese labor force

with him." Anderson seems to be doing well without it. Output per employee is up 50% over last year, and the company is stepping up production 30%. Its big loss last year—the first since 1933—reflected a year-end write-off of \$70 million. Actually, it had an operating profit of \$10.5 million and turned a solid \$7.4 million profit in the first quarter this year, after 1972's disastrous first three months when the company lost \$6 million. Oelman told employees recently, "Our performance this year will determine the course of the company for many years to come."

Up to now, the news is good.

—Tom McCusker

Exports

CDC in East Europe: First Deal Closed

Control Data Corp.'s joint manufacturing agreement with Romania is a hallmark event for both the U.S. computer industry and this maverick East European country. Although there are several licensing agreements, this is the first manufacturing venture with equity investment for a U.S. computer company in East Europe. The equipment involved is quite naturally standard and "nonstrategic" gear: a 1200-card/minute card punch, 250-cpm reader, and a 200-line/minute printer.

Romania was a likely partner for this "first," as it is ambitious for "most favored nation" trading status with the U.S. and was selected by President Nixon for his first visit to the Soviet Bloc. Also, the nation established the mechanism for manufacturing partnerships last November. While the U.S. government has not yet approved the contract officially, it appears certain to move quickly to do so. That certainty was emphasized by the press conference fanfare in New York last month, complete with satellite transmission of the contract-signing in Bucharest by deputy minister Cornel Mihulecea and CDC president William Norris.

The contract calls for the Romanian Industrial Group for Electronics and Vacuum Technology (CIETV) to own 55% of the company and CDC to own 45%. "Benefits will be shared by the same percentage." For this, CDC will provide \$1.8 million in know-how and technical assistance—no cash. CIETV will provide \$2.2 million in plant facilities, tooling, and cash. Control Data will have the option to take profits out in U.S. dollars or in products to use with its systems, or to reinvest in the company or other ventures there.

The products will be sold initially throughout East Europe and "potentially in West Europe." Control Data