first year for promotions and sales training programs.

Bruning also went outside to obtain its hardware from Hewlett-Packard Co., which includes a desk-top computer, a computerized graphics tablet for communicating instructions, and a computer-driven plotter, which physically puts pen to paper to create the final drawing. HP reports that it will also service Bruning customers once the equipment is installed.

If Bruning's strategy works, the division could give its hard-pressed parent a much-needed boost. AM lost $1.5 million last year on sales of $909 million. Earlier this year after battling unsuccessfully for four years to turn AM around, Roy L. Ash was abruptly replaced by an outsider, Richard B. Black (BW—Mar. 9), formerly of Swiss Aluminum Ltd.

Bruning is not itself in a turnaround situation, Tannenberg is quick to point out. The unit's engineering graphics line has been a dependable cash cow for AM, but it has become a mature business whose revenues grew at an average rate of only 9% over the past five years.

Bruning management is convinced that its strategy will boost that growth rate, even though it expects to spark an onslaught of aggressive competition in the low-price end of the drafting market from such CAD suppliers as CalComp and Schlumberger Ltd.'s Manufacturing Data Systems Inc.—and possibly from such traditional rivals in the engineering graphics business as GAF Corp. and Dietzgen Corp. "We've got the right equipment at the right price," says Tannenberg. "That, combined with our marketing strength, assures our success." ■

Briefs

Aetna Life & Casualty Co., a major buyer of data processing gear, is about to become a seller, as well. On Apr. 9 the giant financial services company agreed to buy more than 1,000 IBM Series 1 minicomputers over five years—a deal that could be worth $70 million. Aetna, in turn, will sell the computers, along with related software, to independent agents. The price for the Gemini system will run from $35,000 to $55,000 depending on what software and peripheral hardware are included. The company will also assist its agents in financing the purchase. A leasing program may come later. The independent insurance agents are rapidly moving to computers to reduce their costs and speed communications (BW—Nov. 19, 1979). Many of Aetna's 8,500 to 9,000 agents, for example, already have minicomputers.

A joint agreement has been signed by Tandy Corp. and Tokyo Electric Co. (TEC) that will result in a sales and service network for personal computers that the companies say will be the largest in the Japanese market. TEC will sell the entire TRS-80 computer series, including the models I, II and III, and Tandy will continue to sell the computer through its Radio Shack stores. Tandy will furnish all computers except for the TRS-80 models II, which TEC will manufacture for the Japanese market.

Retrieving information from Data Resources Inc.'s data bases should now be easier for executives, analysts, and economists. On Apr. 1, DRI began offering a desk-top work station that can be operated with no special computer training. The unit permits users to store and process their own data as well as providing the capability to call into the company's central data files. At the same time, the McGraw-Hill Inc. subsidiary introduced Information Plus, a new data base that contains economic and financial data intended for occasional users that require a wide variety of information but do not wish to subscribe to the DRI data files separately. Otto Eckstein, president of the Lexington (Mass.) company, says that his organization will continue to restructure its services to "put our information at the fingertips of more people, especially upper management."

Texas Instruments Inc. will begin building its own computer disk memories. The 5¼-in. Winchester-type disk drive, an increasingly popular-size memory for microcomputers, will be made under license from Seagate Technology Inc., Scotts Valley (Calif.) company. Although it is the same size as the so-called mini-floppy disk devices commonly used in personal computers, data terminals, and word processors, the new Winchester memory stores up to 30 times as much information. It is priced at $1,490—more than three times as expensive as the floppy disk units. TI plans later to bring out disk products of its own design.

Olivetti will manufacture and market overseas a 5½-in. Winchester-type computer memory developed by Irwin International Inc. in Ann Arbor, Mich. The Italian company expects to begin production early next year and to make about 80,000 of the devices annually by 1983. It will market the memory unit everywhere but the U.S., Canada, Japan and South America. Irwin International, formed two years ago by Samuel N. Irwin, the founder of Sycor, Inc. (BW—Sept. 22), already is in production and plans to increase output of the Winchester disk drive next year to 50,000 annually.

Obtaining information electronically by using remote computer terminals to access central data bases is expected to soar in popularity. Revenues for companies supplying on-line data bases should increase 38% compounded annually over five years to nearly $3 billion in 1985 from $632 million in 1980, according to Creative Strategies International, the Santa Clara (Calif.) market research firm reports that in 1980 there were 2.5 million data base searches conducted in the U.S. through such public facilities as libraries.

France's videotex technology has won another battle. Brazil's Telesp telephone company will test the Teletel system, which enables consumers to call up a variety of information on their home television screens. Telesp will use equipment and programming supplied by a consortium of French manufacturers, including Matra, CII Honeywell Bull, and Steria. The test, beginning in January, will place terminals in 1,500 homes in the state of São Paulo. Information will be provided by two newspapers, *Estado de São Paulo* and *Jornal do Brasil*. ■