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VICTORIA, AUSTRALIA

September 1963



# Measure

## In this issue

*WESCON '63--The Big Show*

*HP Adds More Elbow Room*

*Crossley's Million Square Miles*



*from our president's desk*

AS I HAVE MENTIONED many times over the years, the most valuable resource we have in our company is the skill and imagination of our people. Certainly the engineering inventiveness represented by our new products has been a very significant factor in our growth and success. Perhaps equally important is the vast amount of know-how which we apply to our day-to-day manufacturing, marketing, and administrative tasks.

As I walk around our plants, I am greatly impressed by the ingenuity which has been utilized in solving a myriad of production problems. There is ample evidence of innovation in the more complex procedures and processes. Jobs which we once considered difficult or impossible are being done with apparent ease. But it is also evident that many people are thinking about how to do even the simple jobs better and faster.

We have some definite procedures for expanding this important know-how, and for making it available to all groups throughout the corporation. We have specialists in many functional areas, people who have unusual background and experience and who also have shown the ability to put their special knowledge to practical use.

A large number of these specialists are in Ralph Lee's manufacturing group at the Palo Alto headquarters. There are similarly qualified people in other groups and locations, too.

It is important for everyone to recognize the fact that we

do have a great deal of know-how available throughout the corporation to solve difficult problems. Often a person who has a problem to be solved is reluctant to ask for help. He feels that a request for assistance may somehow reflect adversely on his own ability. On the contrary, it is much more important that a problem be solved well and quickly than it is to determine who solved it.

To ask for help is not a sign of ignorance or incapability; it is a sign of wisdom, maturity, and competence. I would encourage each of you, whatever your job, to look around and see what knowledge and guidance you can obtain from others to help you perform more effectively. Our great wealth of know-how is yours for the asking. Your opportunity to grow in your job will be greatly enlarged as you develop the ability to take advantage of this know-how in your day-to-day activities.

We can enhance our progress and strength by innovation in new products. Similarly, we can enhance our progress and strength by innovation in every other function of our company—in manufacturing processes and techniques, quality control, sales and service, office procedures—literally everywhere. This can best be done by teamwork and the free exchange of information and assistance at all levels. The job of the specialist is to expand our know-how in his particular area. The job of everyone else is to make frequent and effective use of this know-how for the over-all betterment of the individual and the company.

*David Packard*

# WESCON '63



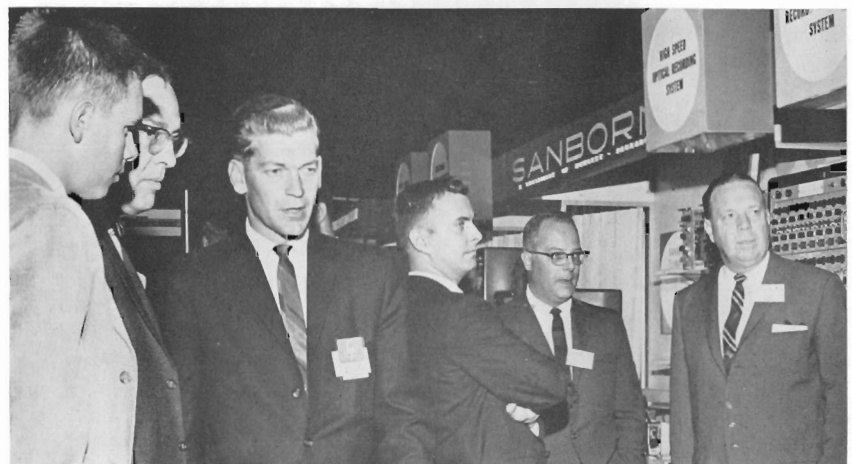
At times it seemed as if all 35,000 WESCON visitors were jammed into the HP booth. Featuring a "Measure-ama" theme, the 80-foot booth was conveniently located in the main arena of San Francisco's Cow Palace.

*The "morning after" consensus on the company's participation in the Western Electronic Show and Convention, August 20-23, was virtually unanimous among HP people who attended: This was the biggest and best of them all! Photos on this page and MEASURE's cover reveal some candid scenes of the show where HP equipment was a focal point for a measurement-oriented clientele.*

George Phillips, Neely district manager, gives a final adjustment to a 175A oscilloscope a few minutes before opening day crowds surged into the Cow Palace.



As part of WESCON's opening ceremonies, Al Bagley, general manager of HP's Frequency and Time Division, presented a special demonstration of the company's new frequency synthesizer to the press.



Neely's Bob Loft (third from left) "pitches" a couple of customers as Sanbornites Ted McCarthy, Jack Clough, and Al Lonnberg prepare to tackle some prospects in the Sanborn booth.

From Boeblingen to Hachioji . . .

## HP ADDS MORE ELBOW ROOM

THE COMPANY'S NEED for more production space, both at home and abroad, has triggered the biggest construction boom in HP's history. Nearly a dozen new buildings are on the drawing boards, now being built or just completed.

In mid-August, ground was broken at Colorado Springs for a \$2-million plant to house HP's Oscilloscope Division. Located on a 30-acre site in Pikes Peak Industrial Park, the 137,500-square-foot plant is scheduled for completion in the fall of 1964. It is the first unit of a four-building complex which will eventually provide 400,000 square feet of space.

Construction of a new building for Harrison Laboratories Division (as reported in MEASURE's July issue) is well underway in Berkeley Heights, N.J. When 100 Harrison employees move in next spring, they will have nearly 50,000 square feet of space in which to work—about four times the amount available in Harrison's two present buildings.

F. L. Moseley Co. is not letting any grass grow under its feet, especially in the large vacant lot next to the existing Pasadena plant. This land will soon be cleared for a new two-story structure to give the company an additional 30,000 square feet. The lower floor will accommodate expanded manufacturing operations, and the upper level will be devoted to engineering and office activities. The new building, to be completed early next year, will bring Moseley's total floor area up to some 80,000 square feet.

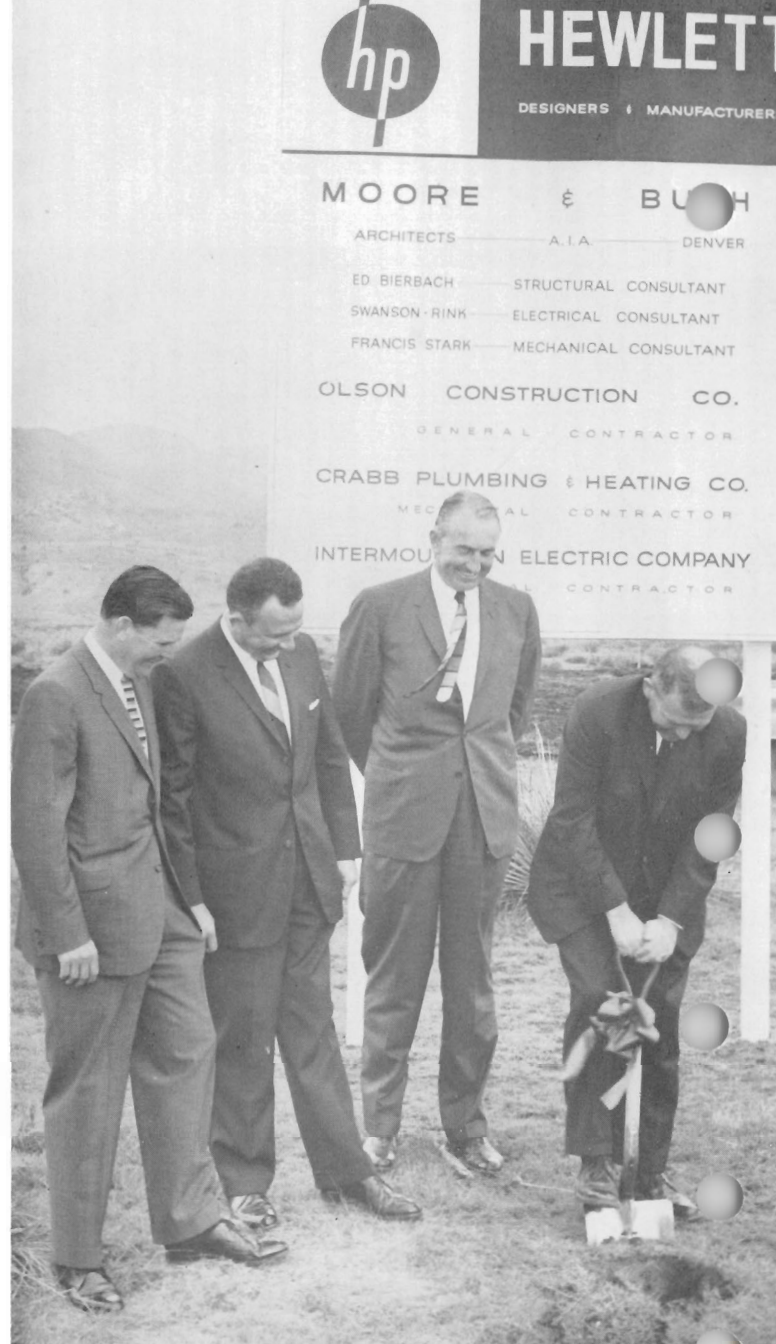
In Palo Alto, the existing PAECO building is being remodeled to provide additional space for HP Associates, HP's solid-state affiliate. On the Massachusetts front, the Sanborn Company has plans on the boards for a major addition to its Waltham plant.

In Europe, the biggest expansion news emanates from Boeblingen, West Germany, where HP GmbH is planning to triple its present plant capacity. By the end of 1964 this manufacturing subsidiary expects to have completed a 52,000-square-foot addition to its existing building. Included in the addition will be special facilities for manufacturing printed circuits.

On August 14, Hewlett-Packard announced that the Japanese government had approved the corporation's agreement with the Yokogawa Electric Works, Ltd., of Tokyo to form a jointly owned company in Japan. The new company, to be featured in the next issue of MEASURE, will be known as Yokogawa-Hewlett-Packard, Ltd.

Plans are already well along to build production facilities in Hachioji, about 40 miles west of the center of Tokyo. Construction of the first unit, a 68,000-square-foot manufacturing and office building, is expected to begin this fall. Long-range plans call for a four-building complex of 300,000 square feet.

HP's sales organizations, not to be outdone by their manu-

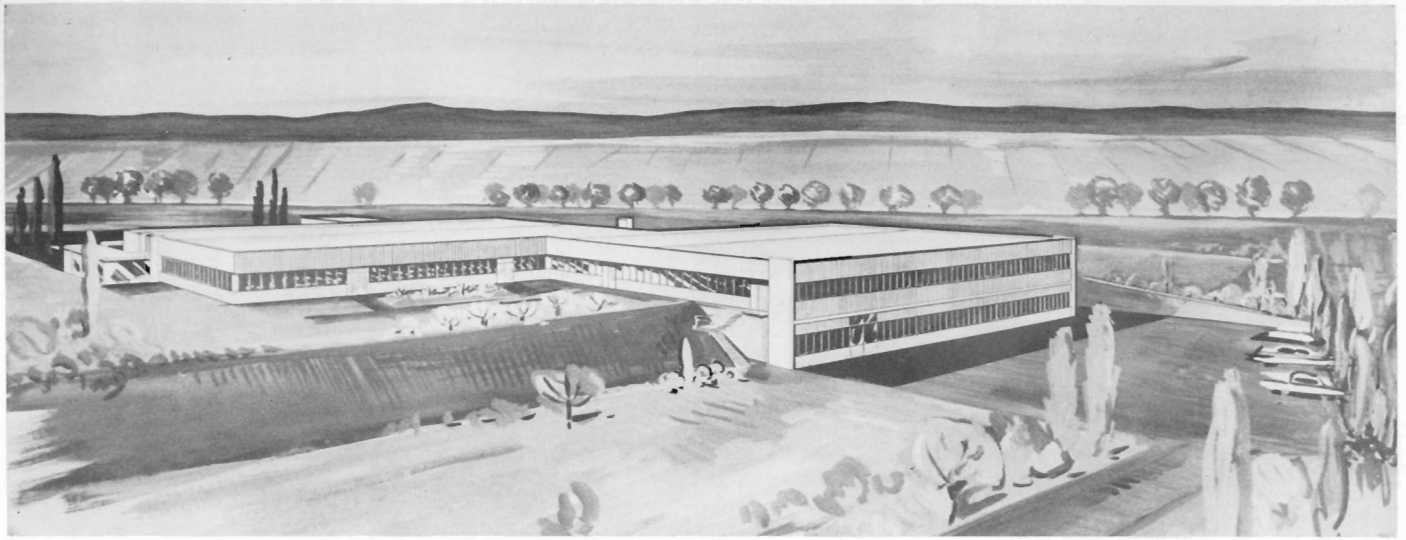


Bill Hewlett did the ground-breaking honors as construction of HP's new Colorado Springs plant officially got under way August 12. Kibitzers include (left to right) Cort Van Rensselaer, general manager of the Oscilloscope Division, Harry Hoth, mayor of Colorado Springs, and Dave Packard.

facturing counterparts, are doing considerable expanding of their own.

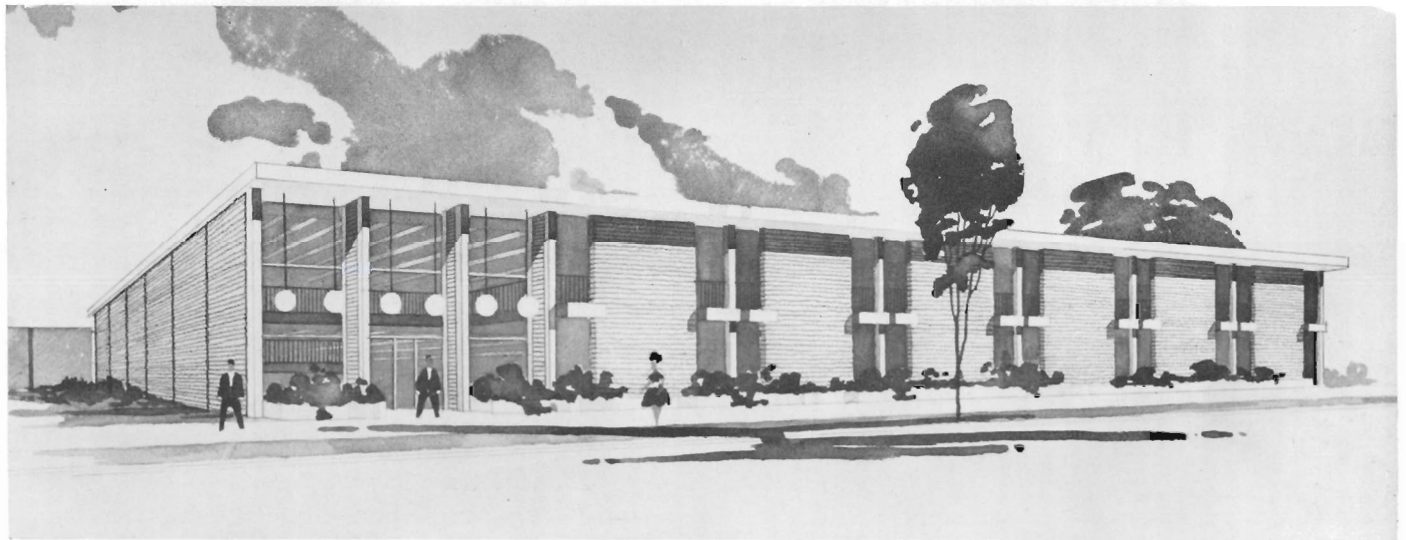
A few months ago the Stiles Sales Division completed a major addition to its headquarters office in Orlando, Fla. Just last month the Sacramento branch office employees of Neely Enterprises moved into their new quarters, a 1,300-square-foot building located a few miles northeast of California's capital. The building was purchased and extensively remodeled in the traditional Spanish style which has become a Neely "trademark."

Meanwhile, construction crews are making good progress on the new headquarters office for Lahana & Company. Located in the new Denver Technological Center, the 5,000-square-foot building is scheduled for completion November 1.



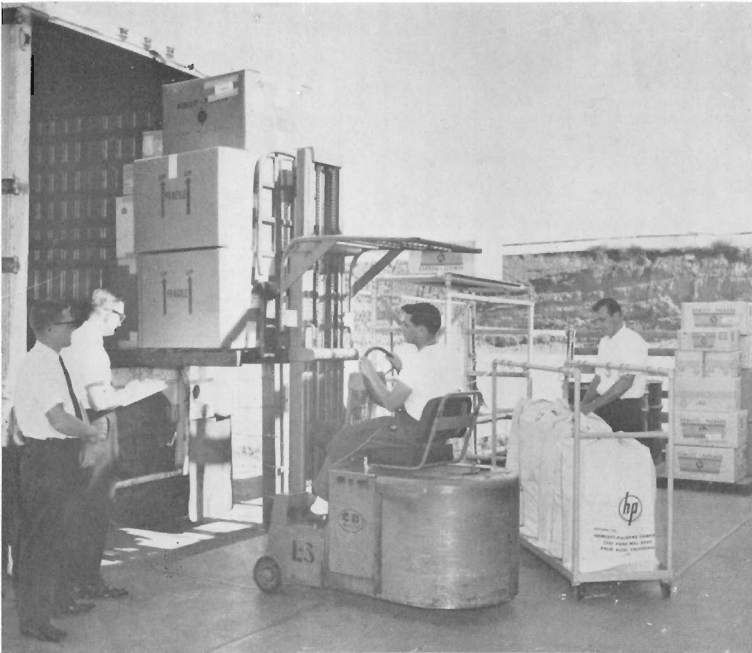
Planned two-story addition to HP GmbH plant in Boeblingen, West Germany, is shown as the right half of building sketch. Each floor of the new structure will provide 25,800 square feet of much-needed space.

Architect's rendering of new F. L. Moseley facility depicts contemporary styling which will prevail throughout the 30,000-square-foot structure.



Neely Enterprises' new quarters in Sacramento are in a building thoroughly renovated to follow a Spanish style of architecture long associated with the fast-growing HP sales affiliate.





NEW AIR CONSOLIDATION program was launched from San Francisco airport August 1 after a countdown covering several months of pulling together loose ends.

Now that the plan is smoothly in orbit, shipments from all HP Palo Alto plants are picked up daily, consolidated into a single shipment, and flown overnight to the Newark, N.J., airport for redistribution to customers in 13 Eastern states. Transit time has been reduced to as little as two days to some locations. Left to right: John Edgar of Flying Tigers Line; Rod Ernst, HP traffic manager who masterminded the plan; Norm Craccholio and Pete Bonnet.

## NEWS IN FOCUS

TELEVISION CAMERAMAN dollies in on HP exhibit at the U.S. Trade Center in Frankfurt, Germany, during recent "Electronics Components and Instruments Exhibit." Scenes at the booth and taped interviews with HP VmbH personnel were televised the night following the opening of the show. About 60 U.S. firms displayed instruments and components. HP VmbH sales engineer Fritz Dieckmann is shown here (far right) with camera crew.



A TWELVE-YEAR-OLD carried the Robinson Sales Division "colors" proudly in the recent soap box derby regional races at Conshohocken, Pa. And speedster Michael Cermanski won a Timex timepiece for his victorious effort, proving, as someone said, that the Robinson crew will come up with a winner every time. Michael also won a \$25 bond for having "the car which looked most like the contestant built it himself." Who would have guessed?

# AROUND THE CIRCUIT



BY NOEL E. PORTER, *Vice President, Operations*

DESPITE THE USUAL seasonal decline in orders during the month of August, our over-all business remains strong and it appears we'll all have plenty to do this fall and winter. After a careful review of our sales and production forecasts for the months ahead, we're beginning to add a few people to our manufacturing operations in Palo Alto and are also shifting more audio-video activity to our Loveland Division. The large oscilloscope order from the Navy places a heavy burden on our Oscilloscope Division and will stimulate some additional hiring in Colorado over the next few months.

The WESCON Show in August was the best ever, and offered a convenient opportunity for many of our management people to get together and discuss ways to improve our over-all efficiency and performance.

A few days prior to WESCON, the sales managers from all our divisions and affiliates gathered in Palo Alto for a day-long marketing conference. Among the more important items on the agenda was a plan to make more effective and efficient use of field office demo stock. This plan points toward stocking high volume instruments in the field offices in order to minimize customer delivery time and keep over-all inventories of finished goods at reasonable levels.

Our Customer Service group is moving ahead rapidly with plans for a Western Service Center. This center will back up the Western field sales offices with factory level repair service, specialized technical information, and an extensive stock of parts. The next move in this regional service center pro-

gram will be the establishment of an Eastern Service Center in the New York area, to be followed at some future date by the creation of Mid-Western and European centers. It's all part of our continuing efforts to increase efficiency and provide our customers with the best possible service.

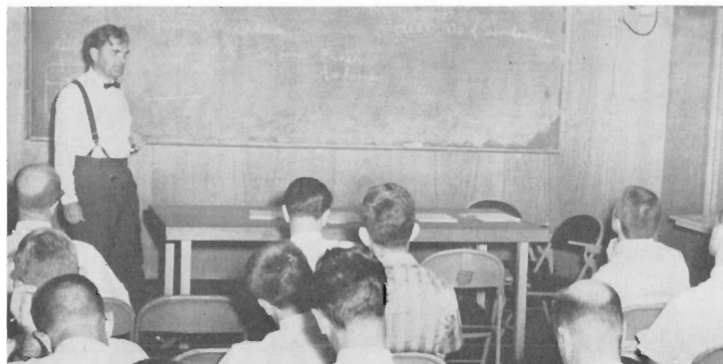
Following WESCON, the corporate finance group conducted a week-long seminar for the finance officers from all our operating units. This was a corporate "first" and was extremely valuable in developing uniform accounting methods, cost control procedures, and other programs designed to strengthen and streamline our corporate-wide financial operations.

While on the corporate kick, we're happy to report that our purchasing people have made great strides in obtaining corporate discounts on common usage items (transistors, diodes, etc.) among our various divisions and affiliates. It's estimated that thus far this fiscal year we've saved over \$300,000 through this heads-up discount program.

Approval of our Yokogawa joint venture by the Japanese government paves the way for what we believe will be an excellent opportunity to strengthen our position in Japan. Ralph Lee, our manufacturing v.p., is currently in Tokyo to develop plans for the start-up of production operations later this year. We've also been visited by several Yokogawa representatives, and are most impressed with their knowledge and enthusiasm. We're confident this cooperative effort will be mutually profitable, and will enable us to capture an increasing share of the expanding Japanese electronics market.

## Discussions on the State of Solid-State

Pursuit of learning never stops at HP Associates, where Dr. M. M. Atalla and Prof. John L. Moll are now conducting a series of 14 weekly lectures and discussion sessions on "The Physics of Semiconductor Devices." Thirty HPA engineers and scientists are attending the graduate level course. In addition to the two-hour classroom sessions held in a Dymec conference room, about four hours of outside preparation are required each week. Dr. Atalla heads research and development at HPA and Professor Moll (shown at the blackboard) is a special engineering consultant in addition to serving as lecturer and researcher at Stanford.



*With Three New Branches, Crossley Gears Up To Serve . . .*

## **A MILLION SQUARE MILES OF OPPORTUNITY**



Chicago's skyline offers a dramatic backdrop for the Crossley Electro cruiser. This mobile laboratory logs thousands of miles a year throughout the twelve-state territory, bringing instrument demonstrations and displays to customers' doorsteps.

**W**HEN FRANK WATERFALL, head man at Crossley Associates, talks about the big hunk of land covered by his staff, there's justifiable pride in his booming voice—and just a note of wonder at the vastness of it all.

"We have twenty sales engineers working a sales area that reaches from Pittsburgh to Omaha, and from southern Indiana to the Canadian border," he says. "That's a million square miles—give or take a couple—right in the middle of America."

To serve science and industry in this sprawling territory, Crossley has a main office in Chicago and branches at Dayton, Cleveland, Pittsburgh, Detroit, Indianapolis, and St. Paul. The sales engineers are backed up by large service facilities in Chicago and several branch service laboratories. The roster of 70 people makes Crossley Associates the second largest HP sales affiliate, exceeded only in number of employees by Neely Enterprises.

Through the years, Crossley Associates has built a reputation for service and professional competence which is recognized and admired even by the firm's competitors. Waterfall attributes this to "quality in personnel and products." He also points out that his people make a determined effort to communicate frequently with customers in many ways. "We want to talk directly to the man who should know about the

instruments we sell," he says. "Our first line of offense is the personal sales call—as it should be. But twenty men can't be everywhere at once in a twelve-state area. So we supplement calls with advertising, a very active mailing program, customer service seminars conducted by factory experts, and lots of demonstrations using our Electro cruiser mobile laboratory."

Frank Waterfall looks, acts, and talks like the master salesman he has proved himself to be. However, in college his education was in physics, first at Indiana University and later at University of Minnesota where he did graduate work. He got a thorough grounding in electronics during three years at the Naval Research Laboratory before joining Crossley in 1946.

Just a decade before that, Alfred Crossley, a brilliant engineer and inventor, had set up a pioneering sales representative business for manufacturers of precision electronic instruments. He did so at the urging of Boonton Radio Corporation (now an HP division) and the Allen B. DuMont Laboratories, who wanted him to represent them in the central part of the nation.

After World War II, Crossley Associates forged ahead rapidly. In 1959, Alfred Crossley died and Waterfall assumed management. By 1960 it became necessary to move

*Continued on page 16*

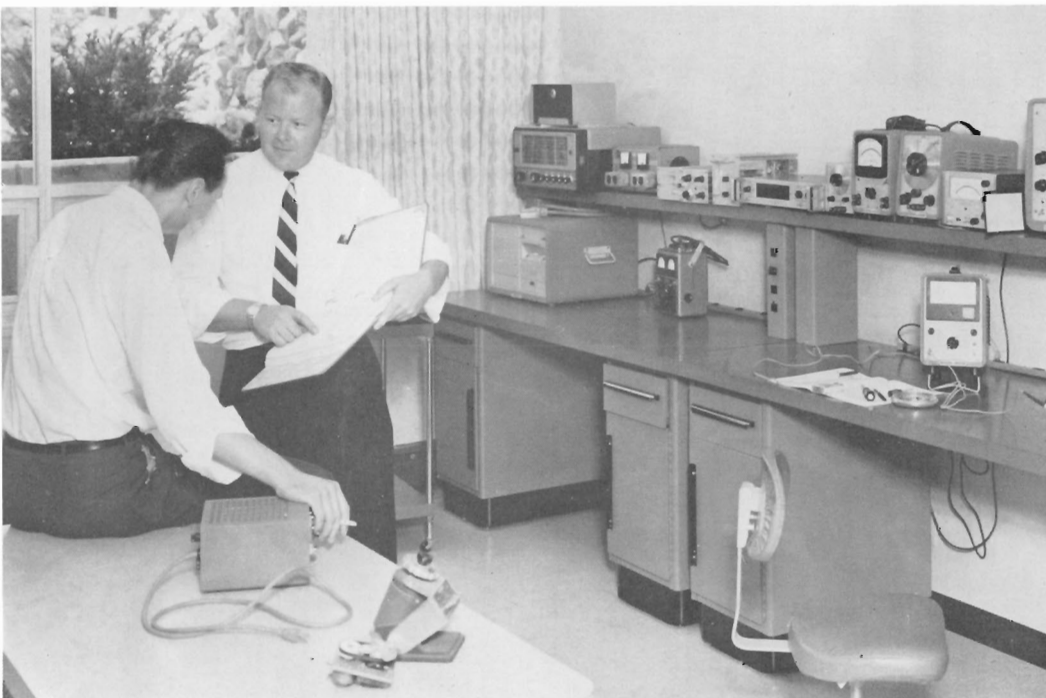




The sales affiliate's future course is plotted by Frank Waterfall, Walt Wallin, and Business Manager Bill Harmsen in the Chicago executive offices.



Al DeNeve, service technician at Chicago, spray-cleans a 524B which was turned in for maintenance.



At Dayton branch, Fred Bless, service manager, discusses a project with Dayton Area Manager Dick Pitner (right).

## Crossley *continued*

into larger quarters (8,200 square feet) on Chicago's Northside. Prior to that, branches had been opened at Dayton, St. Paul, and Indianapolis. Again in early 1963 there was another spurt of growth when the sales group took over the Sterling Company (former HP sales reps) territory and established branches at Detroit, Cleveland, and Pittsburgh.

And now, as a Hewlett-Packard affiliate, Crossley Associates has entered a new era in a relatively long history as an electronic instruments sales organization. "With such a team as this and our million square miles of opportunity, we can't miss," Frank remarks. And you believe him when he says it.



Byron "Zeke" Sadler, Eastern regional manager, lends a hand with the packaging and distribution of HP catalogs to Crossley customers during sales "blitz."

Chicago home office on Peterson Avenue has modern appointments and 8,200 square feet of floor area. Seen here, left to right, are Ronald Dopke, Fred Harvey, and Beverly Wallace.



Addition of Pittsburgh, Cleveland, and Detroit branches touched off a recent series of "sales blitz conferences" at each new Crossley location. Here Frank Waterfall presides at a Pittsburgh breakfast meeting. Left to right: Charles Grohler, Cleveland district engineering manager; "Zeke" Sadler, Eastern regional manager; Waterfall; Walt Wallin, Crossley vice president and sales manager; Phil Conway, regional manager for southern part of Chicago area; and Jack Stajite, Pittsburgh branch manager.



Service seminars attended by customers have become an important sales tool for Crossley. Here Field Engineer Dick Vitales and Service Manager Gordon Kennett (standing left to right in rear) conduct seminar in Indianapolis.



## People on the move

### HP—PALO ALTO

**Larry Miller**, process engineering—to supervisor, prefab line, Oscilloscope Division.

**Frank Wheeler**, production supervisor, Section 2, Frequency & Time Division—to plant manager, Oscilloscope Division.

### LOVELAND

**Harold Briggs**, R&D engineer, Frequency & Time Division—to engineer, R&D, Loveland.

**Robert L. Dudley**, R&D engineer, Microwave Division—to engineer, R&D, Loveland.

**John Dunn**, service engineering, Palo Alto Customer Service—to service engineering, Loveland.

**Dixon Freeman**, central tool engineering, Palo Alto—to tool engineering, Loveland.

### MOSELEY

**John L. Morton** (on loan to Moseley)—to production manager, F. L. Moseley Co.

### COLORADO SPRINGS

**Don Beeson**, production buyer and inventory control, Oscilloscope Division—to production buyer and inventory control, Colorado Springs.

**Gordon Blanz**, R&D engineer, Oscilloscope Division—to engineer, R&D, Colorado Springs.

**Alan Henshaw**, tool engineer, Oscilloscope Division, Palo Alto—to tool engineer, Colorado Springs.

**Don Palmer**, fabrication supervisor, Oscilloscope Division—to supervisor of high frequency production, Colorado Springs.

**Ted Statler**, in-plant engineer, Oscilloscope Division—to in-plant production engineer, Colorado Springs.

**Johan Sverdrup**, R&D engineer, Oscilloscope Division—to engineer, R&D, Colorado Springs.

### HP ASSOCIATES

**Robert Waer**, chief process control engineer, high power microwave division, Eitel-McCullough, Inc.—to photoconductor development laboratory, HP Associates.

**Dale Davis**, microsystem electronics department, Lockheed Missiles & Space Co.—to photoconductor development laboratory, HP Associates.

### HP VmbH

**Hans Hubmann**, International Operations trainee, Palo Alto—to staff engineer, HP VmbH, Frankfurt.

### LIPSCOMB

**Jim Barton**, service manager, Dallas office—to junior field engineer, Dallas office.

**Wendell Holmes**, electronic technician, Neely Enterprises (Albuquerque)—to electronic technician, Houston office.

**Ed Lewis**, electronic technician, Houston office—to junior field engineer, Dallas office.

**Gerald Smith**, electronic technician, Dallas office—to service manager, Dallas office.

**George Tahu**, field engineer, Dallas office—to field engineer, Houston office.

### NEELY

**Duane Dobratz**, HP Customer Service, Palo Alto—to service engineer, San Carlos office.

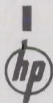
A monthly magazine for the Hewlett-Packard family of affiliated companies

# Measure

Vol. 1 September 1963 No. 3

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DOT TUCKER, Colorado Springs  
HEIKE WOLLRAB, Hewlett-Packard GmbH

"I often say that when you can measure what you are speaking about, and express it in numbers, you know something about it; but when you cannot measure it, when you cannot express it in numbers, your knowledge is of a meager and unsatisfactory kind . . ."

LORD KELVIN (1824-1907)



HERE COMES A HUMMER!

**IF** YOU'RE a baseball fan, you've probably argued at some time or other that your favorite pitcher, Joe What's-his-name, is twice as fast as that other fella your friend is talking about. Too bad that ol' Joe and that other fella weren't around Comiskey Park in Chicago recently. You could have settled the argument once and for all. The *Chicago Daily News* and IIT Research Institute set up equipment to find out just how fast the blazing fast-balls of White Sox pitchers really were. The results: Ex-Giant Eddie Fisher was the fastest of those tested—a flaming 83.62 mph. Pitcher Dave Dusschere (shown here) clocked 81.94 and another ex-Giant, Joe Shipley, hit 80.84. Incidentally, the measurements were accomplished using a Hewlett-Packard “old reliable” Model 522B electronic counter.