

Northwest Science Exposition

In an effort to stimulate our youth to increased active interest in the sciences and related fields of study, the annual Northwest Science Exposition has been established. Boys and girls of all grades, in the public and private schools of Oregon and Southern Washington, are eligible to participate. The exhibits entered in the Exposition, constructed solely by the exhibitor according to Exposition specifications, will be placed on display in the Memorial Union, the exhibit hall, at Oregon State College at Corvallis, from March 24-30. While on public exhibition, the exhibits are judged by scientists from the faculties of Oregon colleges and universities, and appropriate awards made for meritorious achievement.

The Northwest Science Exposition is endorsed by the leading educators of Oregon and their respective institutions, by leading scientists, scientific societies, and by industries, one of which is Tektronix. Howard is Vice President of the Museum of Science and Industry, sponsors of the Exposition. The program has been enthusiastically

received by all participating schools as a vital stimulus to youth interest in scientific endeavor.

Exhibits are divided into four divisions, based on the grade level of the exhibitors. Elementary Division exhibits from grades 1, 2 and 3. Intermediate, from grades 4, 5, 6; Junior, 7, 8, and 9; and Senior Division from 10, 11 and 12. Exhibits in the Senior and Junior Divisions will be divided into three categories:

I. Physical Sciences, covering; principals of physical laws in: communications (speech, radio, television, etc.), production (raw materials and the part science plays in developing them for use.), transportation and distribution principles.

II. Physiographical Sciences such as astronomy, conservation of soils, minerals, and water, etc.

III. Biological Sciences covering plants and animals, medicine, agriculture, conservation. The Intermediate and Elementary Divisions will be divided into two categories covering Physical Sciences and Biologi-

cal Sciences.

All work on exhibits **must** be done by exhibitors. Advice may be secured from whatever source is available, but assistance in construction is not permitted.

Factors considered in Judging are: Creative ability (originality), 20 points; Scientific thought, 25 points; Thoroughness (completeness), 20 points; Technical skill (workmanship), 20 points; Clarity, 10 points; Dramatic value, 5 points. Meritorious achievement in each category of each division will be given special recognition.

All exhibits must be entered on official entry blanks furnished by the Northwest Science Exposition Committee. Teacher coordinators will have entry blanks. A separate entry blank for each exhibit must be sent to Northwest Science Exposition, Oregon Museum of Science & Industry, 908 N. E. Hassalo St., Portland 12, Oregon, not later than March 15, 1956. Each entry blank must be endorsed by a teacher or a group leader acting as sponsor.



Those attending were, L to R: George Roussos, Norma Caufield, chairman of the UF committee for 1956, Yvonne Hoffer, and Laura Lusk. At a meeting on February 24th, Bill Webber was re-elected, and George Roussos was newly elected to serve on the Washington County Board of Directors.

United Fund Annual Report

Four members of the United Fund Committee at Tektronix attended the Annual United Fund Report dinner held at the Columbia Athletic Club on February 23rd. All chapters were represented at this meeting and election of directors of the United Fund was held. Howard Vollum was elected as one of the four new board members.

Principal speaker was Mr. Ray R. Eppert, executive vice president of Burroughs Corporation, who is a director of United Fund, Community Chests & Councils of America and chairman of their advisory committee on United Funds. He is also vice president of the Detroit Boy Scouts and YWCA boards and of the Michigan Society for Mental Health. In describing the United Fund's activities, information was brought out by Mr. Eppert, that the UF single drive campaign was begun in 1949; there is no National pushing of the idea, but 821 communities have followed the plan with 21,000 agencies now being represented. The UF idea is 'going over'.

And why? Because it is the best product on the market—Your Community's Welfare—there's no close competitor.

When asked, 'Who gets the help?', he answered, 'Everyone, in a literal sense.' United Fund is insurance that 'stand-by' agencies will be available when you need them. When I give, I am deciding to buy \$X worth of the efficient product put out by these human-service agencies."

How about putting a 'Limit' on it? The 'limit' was described as being the minimum amount needed by the agencies for their operations during the year. Mr. Eppert reminded us that community work has 2 costs: one—the cost of doing; second—the cost of not doing. The benefits aid us as well as those in need by building better communities thru the facilities of the agencies in the UF.

Washington County United Fund held its first Annual meeting on February 27th. A breakdown of the campaign was outlined. A proposed timetable for 1956 was presented.

513D Used in Development of 'Lumicon'

This is an article submitted by Leo Wulff, field engineer. It was taken from the 'Baltimore Sun' paper January 24, and reported by Gwinn Owens, Evening Sun Correspondent.

Leo tells us; "Here's an interesting story about 'an amazing invention' which was developed by two of our customers. It's not hard to think of lots of uses for such a device—hmm?"

Both Dr. Russell Morgan and Ralph Strum made good use of a Type 513D during development work on the "Lumicon", and think Tek instruments are tops. Their prototype has some Type 513D distributed amplifier grid and plate lines in it, too."

"New York, Jan. 24—An amazing invention that literally makes it possible to see in the nighttime darkness was unveiled here today by Johns Hopkins scientists and Bendix-Friez of Baltimore.

Called Lumicon, the device was developed by Dr. Russell H. Morgan, radiologist-in-chief of the Johns Hopkins Hospital, and Ralph Strum, a Hopkins physicist. It was turned over to Bendix-Friez, the instrument division of the Bendix Aviation Corporation, where it was refined and perfected.

Lumicon is basically similar to a closed television circuit except that the light picked up by the orthicon tube (the equivalent of the television camera) can be intensified up to 40,000 times on the picture tube of the receiver.

Hence, while Lumicon cannot "see" if there is no light at all (a condition that rarely exists), it can take minute quantities of light, such as might be present on a moonless, starlit night, intensify it and show an image on the picture tube that is almost as clear as daylight.

Widespread Use Seen

The possibilities of the invention, both for civil and military uses, seem almost limitless. It is possible to imagine military vehicles moving without lights at night, each with a Lumicon device on the front with

the drivers looking at a picture tube instead of through their windshields.

It is possible to imagine ships moving at night without lights, but clearly seeing their way with Lumicon. An airplane could see the ground below it despite the darkness.

The development of Lumicon is another in a series of inventions developed by Dr. Morgan and Mr. Strum, using the principle of electronic light intensification.

Dr. Morgan, oddly enough, is a medical doctor who first put the intensification principle to use as an aid to X-ray fluoroscopy. As radiologist-in-chief at Johns Hopkins he was aware of the serious limitations of the ordinary fluoroscope.

Risk To Patient

It can only be used for brief periods without risking harm to the patient, and the radiologist can only see it clearly by staying in the dark for a few minutes to accustom his eyes to the dim light.

The principle now used in Lumicon was developed as a means of brightening and sharpening the contrast of the fluoroscope. Instead of viewing the fluoroscope directly, Dr. Morgan pointed his orthicon tube at it, intensified the light and showed the image on a picture tube.

This now means that the intensity of the XL ray can be kept at a very safe and low level and makes possible study of the patient for diagnosis over a long period of time rather than just for a few seconds.

As an additional boon, the intensifier used with the fluoroscope made it possible to provide enough light and take enough time to make the first fluoroscopic motion pictures.

These are now invaluable as teaching aids and occasionally in diagnosis. The viewer can now see food digesting or study heart beats, or anything with motion inside the body.

Suggestion Adaption

It was Dr John D. Strong, professor of meteorology and astrophysics at the Johns Hopkins Uni-

versity's Homewood campus, who persuaded Dr. Morgan to adapt the principle used in the intensifier to broader use.

They did some simple experiments in taking pictures at night with remarkable results.

As a further use of the principle, they took a model of the intensifier to Lowell Observatory in Flagstaff, Ariz., to use for astronomical photographs.

One of the problems faced by the astronomer is the lack of light as he tried to photograph the heavens. When taking pictures of the planet Mars, for example, it was necessary to make exposures of long duration, usually at least a minute.

During this long minute, the atmosphere acts somewhat like a lens and tends to slightly change the focus of Mars. Likewise, there are obstructions of moisture and dust in the atmosphere. These handicaps limited the clarity of the pictures.

Made Much Brighter

When the electronic intensifying device was affixed to the telescope, the image of Mars was made so much brighter that it was necessary only to expose the picture for a tenth of a second.

Even under comparatively poor conditions, the observatory produced some of the best pictures of Mars ever taken. They were only experimental, however, and plans are now under way to take pictures this year when Mars will be a lot closer than it was in 1954 when the first pictures were taken.

In fact, Lowell Observatory astronomers think they may get pictures that will reveal many of the hitherto unknown facts about the surface of Mars, a planet that has fascinated men for centuries."

It makes for a very pleasurable feeling for each of us here at Tektronix to be able to say that we have contributed to bringing about such marvelous new developments. And thank you, Leo, for this interesting article.

What Does the Advisory Group Do?

What does the Advisory Group do? Oddly enough, it's not easy to give a clearcut answer. Meetings are held weekly for two hours or more. A great deal of time is spent collecting information and data concerning some problem the group is, or will be, discussing. However, there are no rules governing the activities of the group, so that the members themselves have to determine their own activities. Of course, if an afternoon were spent playing poker, some comment would probably be made about it. Fortunately, this has not happened—yet. Generally though, most meetings are spent discussing problems and situations concerning company operation, or any subjects that might have a bearing on Tektronix operation, past, present or future. As you can see, this covers a wide range of subjects. If specialized information is needed that is not easily available to the members themselves, the people who are concerned with that phase of the company operation are called upon to attend the meetings. This not infrequently includes members of the Management Committee.

Periodically, quite a bit of time is spent re-examining the place and function of the Advisory Group itself in company operation. Actually, it is just what its name says it is. It has **no** authority, in the accepted sense of the word. It is **not** a junior Board of Directors, or a junior version of the Management Committee. It is a place where the management group can bring problems for discussion and evaluation concerning potential changes in policy or operation. It **does** generate new ideas concerning changes in, or additions to, operating procedures or policy matters, which are then passed on to the Management Committee for any action they may care to take. The Advisory Group as such does not execute its ideas, but after recommending them, may be requested to help carry them out. However, the Supervisor's Committee; the acquisition of the microfilm machine; the investigation of personnel surveys as a means of gauging company morale and finding potential trouble spots; the publication of the Tektronix Newsletter; all are ex-

(Continued on page 4)

Tek Talk

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Have You Prepared To Vote?

A compilation of information on voting has been made by League of Women Voters, as a reminder and a guide to everyone.

You are qualified to vote if:

- You are a citizen of the United States.
- You are 21 years of age or more on election day.
- You have been a resident of the State of Oregon for 6 months immediately preceding the election.

You must register if:

- You have not registered before.
- You have moved to a new address, city or town.
- You have changed your name through court action or marriage.
- You failed to vote at the primary or the general election in 1954.

You may register on:

- Any day throughout the year up to the 30th day preceding any election except legal holidays, Saturdays and Sundays. April 18th is the 30th day before the Primary, which will be held on May 18th, the 3rd Friday in May.

You may register by:

- Filling out a registration blank at the County Clerk's office.
- Registering with the deputy registrar in your district.

You may vote on an absentee voter's ballot if:

- You apply for ballots prior to the election, mark them and return them to the County Clerk 5 days before the election. The ballots must be notarized.

You may secure a certificate of registration if:

- You are a registered voter who will be absent from the county on election day and have not applied for an absentee voter's ballot. You must call at the County Clerk's office to receive the certificate of registration.
- You will complete your residence requirements or become 21 during the period when the registers are closed, you may register during the 30 days preceding the closing of the books.

To make your ballot valid:

- If you make a mistake, you're entitled to another ballot. Request it from the Election Board. Check your ballot to see you have voted as you intended.

Don't Let George Do It!

It's Your Democracy!

VOTE IN ALL ELECTIONS

It Seems Beggar's Are Choosers

The Beggar's Dozen Investment Club claims the biggest loss and the greatest gain in individual stocks among the several investment clubs at Tektronix. One stock purchased at \$57 declined to \$48½ before beginning its recovery. On the brighter side, one stock purchased at \$17¼ advanced to \$30½ and the club hopes the rise will continue to \$35. Another stock purchased at \$24 has advanced to \$40.

The Beggar's Dozen Club organized and purchased its first stock in June of 1955. It has purchased to

date stock of eight different companies. In spite of maximum broker's fees and minimum of experience of the membership, the latest Treasurer's report shows a respectable 3% book profit.

At the present time the Beggar's Dozen Club has openings for four members. The club meets at 7 pm for two hours every second Tuesday of the month. Visitors, of course, are welcome. For further information contact President Fred Tinker, in manuals department.

* * *

New Test Training Center



Patrons of the Cedar Hills shopping center have been exhibiting some strange behavior in recent weeks. Upon reaching an area between Parker Furniture and City Finance they are prone to turn suddenly and rush to an unmarked store front. Here they flatten their noses against the window pane and, in the classic manner of small boys in front of bakeries, pose unashamedly with eyes bulging and jaws slackened.

The equipment and activity within would seem commonplace to the Tek people—this is the new home of test department's training facility.

One of the main functions of the section is to familiarize new members of the test department with the theory, operation, trouble-shooting and calibration procedures related to our equipment. Another purpose is to cross-train members of the test department who are familiar with the details of some, but not all, of our highly complex and often specialized instruments. In addition Tektronix provides training for technicians and engineers sent to us for that purpose by our customers.

Instruction is given by Eddie Richmond and Warren Collier. Eddie joined Tektronix in June of last year. Prior to that time, he was director of the Electronics department of Multnomah college in Portland. He is also the author of 'Calculus for Electronics', a book soon to be published by McGraw-Hill. Warren has been in the test department since November of 1954. He gained his background in electronics in the Air Force.

The number of trainees in the department at any one time has been on the order of eight or ten. Similar instruction has been given in the department for several years, but the demand has grown with our general expansion, and the separate facility has been in operation since February 15th.

Eddie reports that only one of the window-pane spectators has had the initiative to come in and make enquiry. An elderly woman entered and asked if 'this is going to be a radio repair shop'? The boys gave her a polite and (hopefully) informative answer. After all, everyone knows what an oscilloscope is?

Snack Bar: Annual Report

Altho the Snack Bar area is small and compact, large quantities of foods priced from 2 cents to 22 cents pass thru it. When you look at the total dollar value of \$21,115.51, exclusive of vending machine products, for food purchased during 1955, you begin to realize how big this 'small' operation really is.

Perishable foods constitute a large portion of the items handled by the Snack Bar. Breakfast rolls, cup cakes and sandwiches cannot be kept much over 24 hours even when refrigerated. So breakfast rolls, for instance, are sold at half-price to Tek people, rather than have them become dry and unwanted. Left-over soup, sandwiches, etc., are sent down to various Missions, rather than thrown out. Every effort is made by Elsie to have enough food for everyone each day, but due to weather and proximity of pay days, for instance, people may decide to stay here and eat instead of going out as usual. This uses the food often reserved for swing and the problem is on: Try to order more food, and quite often—fast. This may be possible in time and may be not.

Just to familiarize everyone with the operation of the Snack Bar, Elsie has figured some of the average mark-up percentages:

Cup cakes, breakfast rolls	4.6%
Sandwiches	10 to 11.3%
Soups	10 to 11.4%
Chili	35%
Candy bars, gum, etc.	41%

As you can see, the over-all mark-up is very small. A higher allowance on some of the foods balances the losses on the more perishable ones. The cost of lunch is reasonable for those using the Snack Bar's facilities. Coffee, tea, sugar and cream are furnished by Tektronix. Equipment is furnished and replaced by Tek. Elsie and Al Maxwell are Tektronix employees and their wages

are to be considered Snack Bar expense, altho Al spends part of his time with maintenance, and this is taken into consideration. Not counting Al and Elsie's wages, coffee tea, sugar or cream;

food purchased during 1955 came to \$21,115.51
cash received was 21,043.92
actual loss on sale of food 71.59

Our mark-up of about 10% is intended to just cover losses on perishables, which this year was 10% of \$21,115.51 or \$2,111. We only missed by \$71.59. Last year, we missed by \$2,200. So this is a terrific improvement. This is a small loss when you realize money is sent in a cup on each tray of food, and it is each person's responsibility to make change properly. There is the problem of eating habits to be considered, too. Some days everyone wants pastry and sandwiches, the next day nothing. Elsie has to allow for our 'whims' and order accordingly. If food is left over, she must figure a way to get back the best return, which is selling for less, or disposing of it.

Between good management and cooperation and integrity of the people at Tektronix, the Snack Bar is doing well.

PERSONNELITIES

Bob Randall transferred from final assembly to carpenter shop.

Don Pratt changed from unit wiring to final assembly.

Terry Clifford from sandblasting to unit wiring.

Tress Van Diest from accessories to unit wiring.

Alan Hayes from unit wiring to final assembly.

Glenn Pelikan from unit wiring to final assembly.

Werner 'Bud' Rasmussen transferred from final to group leader in unit wiring.

George Riley transferred from panelcraft to shop.

Profit Share For Feb.

Did you know that Tektronix business is somewhat seasonal, tho not nearly so drastic as canning or logging. A study of orders received over the last seven years indicates that the first and third quarters of the year are usually nearly normal along a rapidly growing trend. But we have learned to expect the fourth quarter to be about 10% below normal, and the second quarter, April, May and June, to be some 13% above.

Since this seasonal fluctuation is not drastic, we allow the backlog of unfilled orders to fluctuate somewhat to allow keeping all employees busy thruout the year. We also use temporary summer employees to fill in for vacations and help level off the peak.

But this year is exceeding normal expectations. Since October, 1955 orders received have not eased off as expected, but, except for December, set new records each month. As you may recall from last month's Tek Talk, January orders exceeded the previous month by 23%, and we now learn that February, usually the smallest month of the year, exceeded January by 11%.

You may remember that January shipments were only about 90% of orders received. Altho a few more scopes were shipped in February than in January, the higher percentage of Type 310 and 315's included meant that the dollar value was not as high. Thus the backlog of unfilled orders providing work for us is higher than ever.

Since February shipments were about equal to January's, and the profit share had to be split with the 60 employees added during the month, the profit share dropped to 53%, 10% for retirement, with half the remaining paid you March 5th. Remember that, as we add more and more employees, we must ship more and more to keep the profit share up. That is also the way to please the customers.

Gift Fund Gossip

Al and Betty Croeni welcomed Lisa Gail on February 11th. Son Steven and daughter, Debora, are excited over her, too. Getting all three to look 'just right' for pictures will be quite a job because Stevey is just three and Debby two years old, and they're quite a pair! Teks sent Lisa a soft pink blanket to cuddle up in.

* * *

Helen Rowher is staying in Seattle. Ceramic's gals and all of us, wish her the best.

* * *

Lillian Walker is staying home too. Her boys should keep her busy, at least for a while. Teks sent her Mel Mac soup plates to go with her new dishes as a parting gift. Charcoal and Coral, were the colors she had chosen.

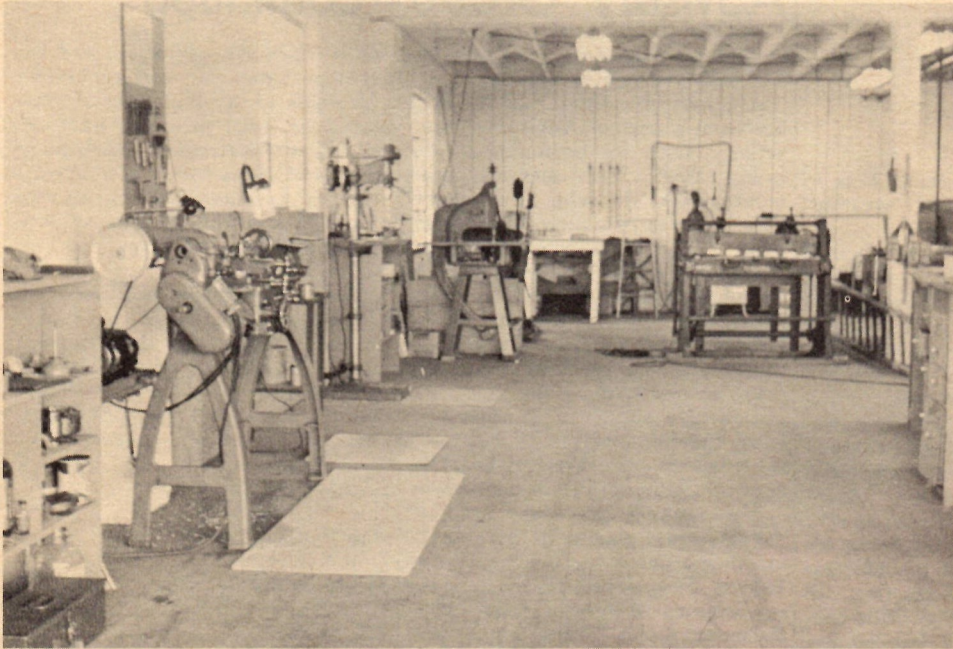
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Illness kept quite a few home during February. We're very glad so many are OK and back with us. Among them were Evelyn Johnson, Kathy Hall, Chet Haskell (had quite a seige of pnemonia), Gladys Koch, Lucille Field, Elinor Tuttle, Joe Drapeak, Emma Lanctot, Wilma Webb, and Jim Morrow. The florist's suggestions of potted tulips, hyacinths and bright azalea plants filled our requests for flowers beautifully.

* * *

Millie Cantrall became Mrs. Robert Dale McMillin in an evening ceremony at Mt. Olive Lutheran Church in Forest Grove on February 25th. Tek gifted her with a green shag rug for a wedding gift.

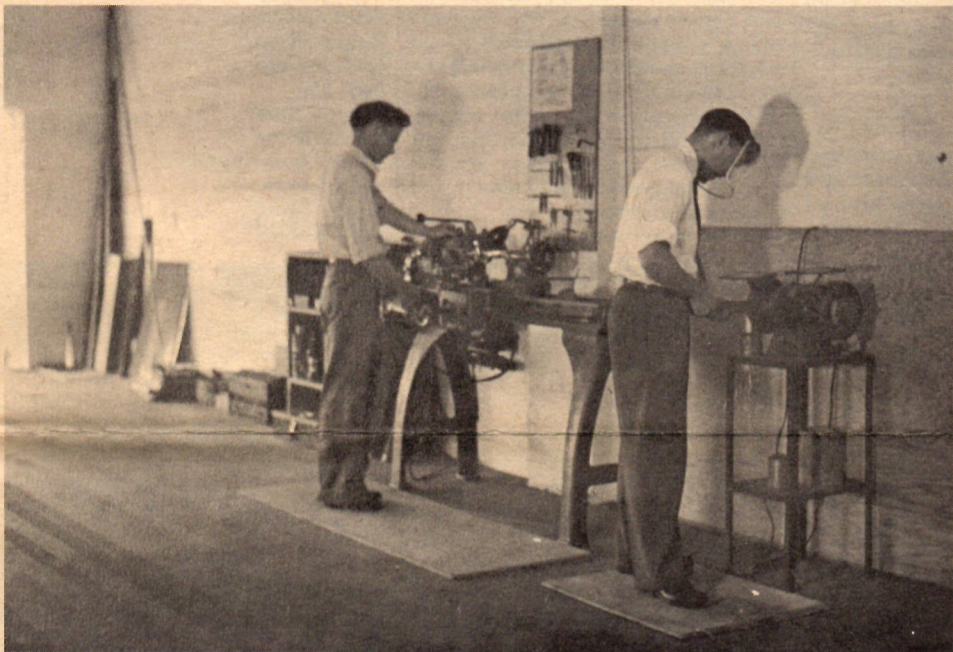
Our sympathy to Barbara Ekstrom on the death of her stepfather, Mr. Nels Hansen, February 25th.



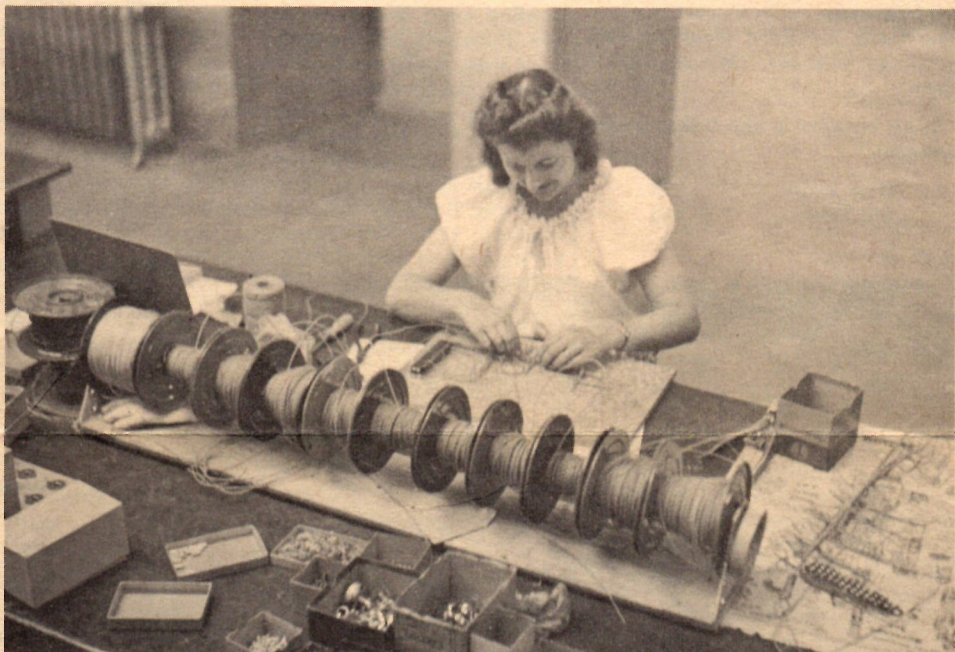
Here is the first shop set-up. It was situated on the east side of the up-stairs room occupied by Tektronix on Hawthorne street. L to R are: A metal lathe, grinder, drillpress, punch press, sheet-metal brake (used to bend metal for cabinets and chassis), to the right of it is a sheet-metal shear, and behind that can be seen the first heliarc welding equipment. The welder is the only piece not in use now, as it was traded in on new equipment.



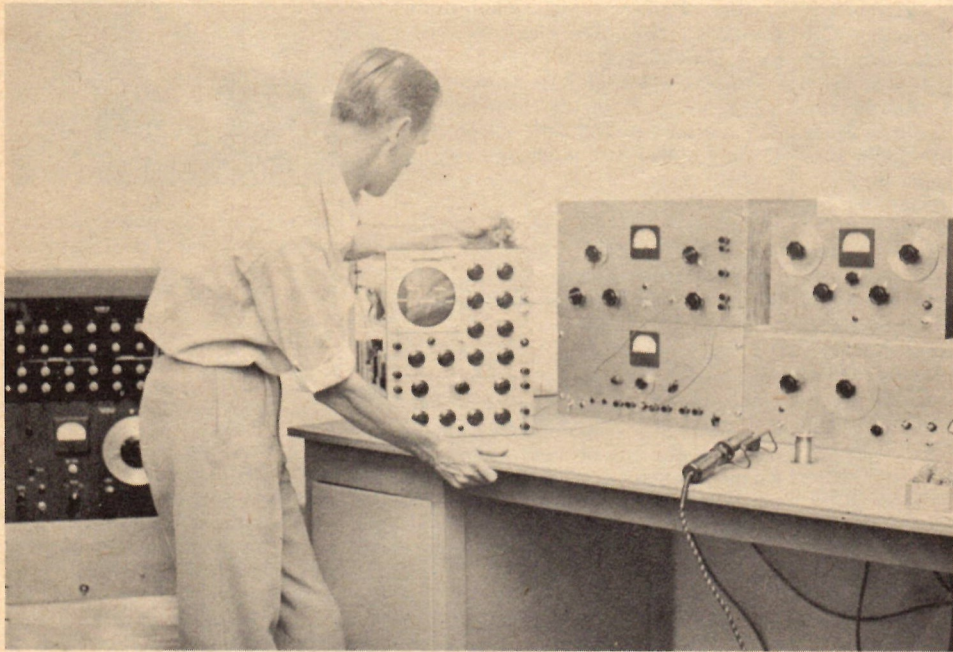
Here is another picture of the assembly line situated across the room from the shop area. Amelia Bave is working on cables, Harold Kanter, Jim Moulton (Cliff's brother) and Miles Tippery are shown assembling the 511s. Note the stock department on the west wall. Between the racks of parts were doors to the stairs at rear of room, next is dark-room, the office and engineering rooms. The test department was the room just ahead of engineering. The painting equipment and belt-grinder were in the garage part on the first floor.



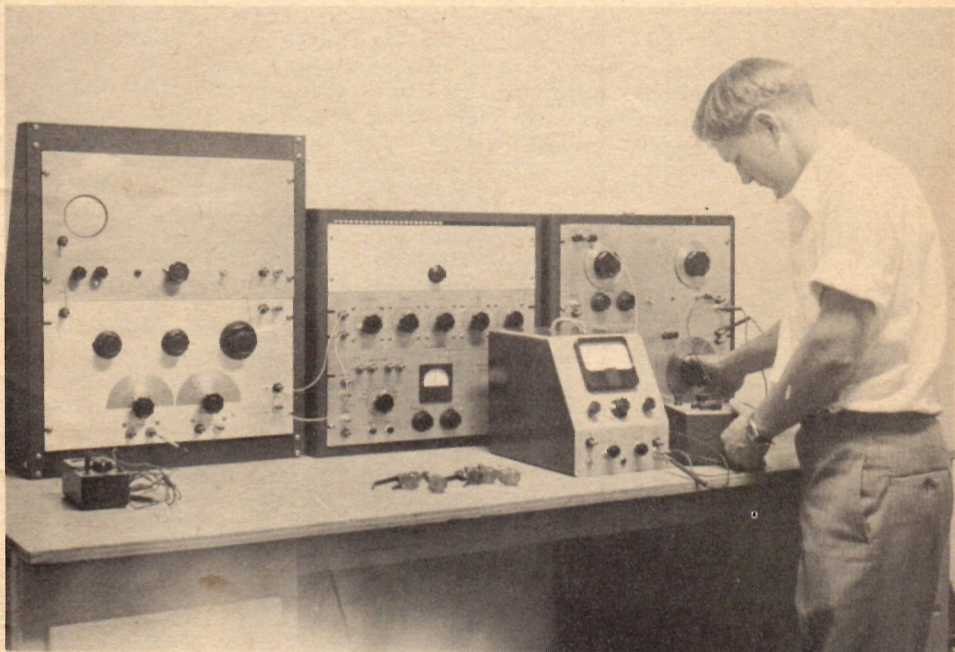
Here you get a glimpse of the front area of the room and those big, wide windows with a north light. Howard Gault and Lowell Hadley are operating the lathe and grinder.



Milt Bave's wife Amelia, is shown in the first cable department—one whole bench. She is working on the cable board for the 511s. She would make the cable, do the mechanical assembly on the chassis, and wire in the cable.



Mel Lofton posed for this picture showing the 511s. Mel is our architect, but subbed as a test man for this one (looks real authentic, too, Mel). The calibration equipment was designed by Howard, and includes: banked to Mel's left are a time-mark generator, power supply, and audio oscillator. Just beyond Mel is a square-wave generator on top of a laboratory power supply, then an AC bridge and underneath it is an RF signal generator. All the equipment was built at Tek.



This picture features the first instrument manufactured—the Video-Calibrator. Jack is using the equipment to check the calibration of the Video-Calibrator. The equipment was designed by Howard, and includes a capacity and inductance bridge, with a cathode-ray tube indicator, a decade box and wheatstone bridge, the third is a standard cell potentiometer. The little box beside the video-calibrator is a Leeds & Northrup galvanometer. Some of this equipment is still being used.

INTERESTING FACTS ABOUT THE INSTRUMENTS IN THE LEFT HAND PICTURE:

The time-mark generator shown is the first one, which was used in test. The demand for more instruments necessitated building another. Rogers Jenkins, now in engineering, built it—with some improvements added that had been in mind—and eventually this evolved into the Type 180 Time-Mark Generator we manufacture today. At that time, Rogers was working in test, and Bob Herren was supervising. Later Rodgers was moved to engi-

neering. They tried to get enough built so each test man could have one. They were used at one of the shows and proved so useful, they were put into production and on the market by August of 1952.

The RF signal generator was replaced by the Type 190 in the summer of 1953. The square-wave generator was replaced by the Type 104 and then the 105, in 1948.

SPORTS SPLASHES

Sports Editor — Eb von Clem — CRT

There are 27 games left to roll in the Tektronix Bowling League. We are on the home stretch! The Tek League consists of four teams— all Tek people. It was formed about 4 years ago and has been in action every season since. Most of our high-average bowlers in city competition are products of this league. For anyone interested, Thursday nite at 6:30 at Rose City Bowl, foot of Canyon, is the League's bowling time.

High team is #2, consisting of Len Nelson, Audrey Duyck, Orville Riggs, Ida Smith and captain Ken Lukens. They have amassed a total of 58 points for the season. Nearest competition is team #4 with 52 points. Number 4 team has Harlow Loucks, captain, George Riley, Wilma Stapleton, Earle Pahlka and Ed Kiepk.

Third place is team #1 with a total of 45 points. Making up this team are: captain Barb Ekstrom, Lee Wagner, Marge Thorn, Warren Dixon, and Paul Magnusson. Team #3 is low man on the Totem Pole, with 29 points. The members are Don Pratt, Warren Collier, Helen Sherrod, Neil Skinner and captain, John Durecka. (They upset the winning team the third week in February, so look out, they may do it again).

High bowlers in the League, with averages;

Don Pratt	170
Ida Smith	133

High Series:

Orville Riggs	513
Wilma Stapleton	445

High Game:

Ken Lukens	212
Barb Ekstrom	164

We are carrying seven able subs on the roll. They are Kay Bartmess, Betty Spohn, who rolled 196 on Washington's birthday, Alice White, June Wooldridge, Bill Barnes, Burt Eberly, with a 182 average, and Doug Prouty. Bill Barnes and Betty Spohn provide the opposition with some anxious moments each time they bowl.

Of interest to all bowlers will be a mixed-doubles tournament being organized for the near future. All Tek people, Bill McCord's construction crew, and all their families are eligible. Entry blanks and information will be posted on the Bulletin boards soon.

Some time before the close of the season, on April 26th, there will be a meeting of all interested parties for the purpose of organizing the

Tektronix League for the 1956-57 season. Date of the meeting will be posted on the bulletin boards.

For the past few weeks we have been having challenge matches between the engineering and shop departments. At the present time, the shop is ahead by 3 series to 2. These teams consist of the following personnel:

Shop	
'Ash' Ashenbrenner	173
Bob W. White	180
Miller Duris	170
Roger Carter	155
Carl Helmer	154
Team Total	832
Engineering	
Burt Eberly	163
Guy Borlaug	163
Don Pratt	165
Armon McDowell	154
Slim Sorenson	154
Team Total	799

These games have been bowled with no handicap and the matches are held at 4:00 at Hillsboro alleys any day both teams are available.

The team featured in this month's bowling news is sponsored by Terry's Furniture of Beaverton. This team was newly organized and has entered city competition for the first time this year. It is currently in 1st place by 12 points. Making up the team: Armon McDowell, 154 avg., Carl Helmer, 154, Miller Duris, 156, Guy Borlaug, 163, Ash Ashenbrenner, 173, Slim Sorenson, 154 (captain), and Jack Terry, sub and beloved sponsor.

This team also entered the State tournament, but were unable to place. Although Jack Terry and Armon McDowell did place in Class D Doubles and finished in sixth place. They have entered the Albany All-Coast tournament at Albany, also.

On the Wednesday nite 9:00 PM —900 Classic League, we have four very competent bowlers: Ash Ashenbrenner, Burt Eberly, Guy Borlaug, and Don Pratt.

Everyone is encouraged to come and join in on the fun. Every team needs a rooting section. Also, if you are interested in bowling, contact any bowling member or team captain.

Last minute bowling news: Tuesday nite, February 28th, the Commercial League played at Canyon Bowl.— Tek team, made up of Chuck Gasser, captain, Dick Ropiequet, Burt Eberly, Roger Carter, Don Ellis, Don Calnon (who was absent and missed a lot of excitement), and Dick Schmidt as spare climbed into a tie for first place with Beaverton's Men's Shop. This is a very close league with third place one point out of first, fourth place one and one-half out, and sixth only five points out, in a ten-team league.

In the Tektronix League, team #3 took 4 points from team #4 and team #1, which was the third place team, took 4 points off team #2 which was in first place, on Thursday, March first. That just shows, the battle isn't won until the last game is played.

After the Wednesday nite session of the "900" Classic League — March 7, at Canyon Bowl was over there also appeared to be another close finish in the offing. Four of the Tek bowlers who are in this league are having a tough time trying to predict just what the outcome will be. It seems there are only about 5 or 6 points separating the first five teams!

Fore-r-r-r-r-r!

(With 1955's tournament held in the rain? and this year's weather, we ought to say 'GLUB'.)

But a meeting is being planned for sometime in March for all those interested in GOLF. An early start with the planning should bring forth a lot of good ideas for the summer's fun (and we're ready for some!). Tournaments, all kinds, are being considered. We had just one last year but there are so many interesting things to do, several are being talked about for this season.

Lessons have been offered at very reasonable costs, and are being investigated. There will be information about them at the meeting. All Tek people and Bill McCord's construction crew and all families are welcome. This should make for a lot of fun, and it's hoped interest will run high this year. We certainly had loads of fun—rain or no—last year.

Notice of the meeting will be posted on the bulletin boards and announced. Try to attend, but don't stay out of things if you miss. There's plenty to do on committees for 'This and That' to keep things running well, and participation keeps interest and competition up. Jim Peabody and Bob Leipzig have volunteered to organize.

Who's that test man who was concentrating on his work so hard he left the motor running in his car? E. P.? He has a bright yellow shirt.

Method will teach you to win time. —Goethe

Economy is in itself a source of great revenue. —Seneca

Advisory Group -- continued

amples of Advisory Group discussion and/or recommendation.

Another interesting feature that has been a part of Advisory Group activity since its beginning is the rating sheet. Each member, each month, ranks the other seven members in order of ability on a signed form. This is done for nine different characteristics such as creative ability, compatability, comprehensive managerial ability, (this last is defined as 'who you would most like to operate your business'), and others. The results of all the sheets are compiled, a summary of each persons' ranking is given to him, and the whole is passed on to the Management Committee for examination.

The ranking procedure accomplishes several things. It gives each member a chance to see how he is judged by his associates, and the opportunity to improve himself in those attributes where he is low. It gives the Management Committee an opportunity to compare their opinion of a person with that of his associates. It helps to develop skill in judging and comparing the capabilities of several people in a logical and orderly manner. It also gives the Management Committee an opportunity to evaluate the ability of an individual to evaluate his co-workers.

From the foregoing it can be seen that the character of the Advisory Group actually is determined by the members comprising it. If it is active and imaginative, it is because the present members are active and imaginative. If it is sedentary and dull, it is because the members are this way. If one person dominates it, it is because the others let him. If it is torn by disagreement, it is because the members have not been able to compose their differences. If it works as a team on company problems and new ideas, it is because the individual members have decided that the Advisory Group is important to company operation, and can accomplish more by concerted effort.

It's safe to say that most of those who have been members have felt that it was extremely worthwhile. Several of them have undertaken to establish an unofficial organization of the ex-members to discuss common problems pertaining to Tektronix.

The following people, listed in order of their retirement, have been or are members of the Advisory Group. It will be noted that four of them—Jim Morrow, Derroll Pennington, Earl Scott and Dick Rhiger—have been re-elected once.

John Taylor
Scotty Pyle
Jim Morrow
Bob Poulin
Don Kepler
Sandy Sanford
Earl Scott
Ed Bauder
Derroll Pennington
Bob Strutz
Dick Rhiger
Don Ellis
John Matthews
Byron Broms
Bob Fitzgerald
Will Marsh
Hawkin Au
Jim Morrow
Bill Polits
Bob Leipzig
Ted Goodfellow
Henry Haase
John Liedtke
Jack Day
Gordon Sloat
Ken Walling
Derroll Pennington
Les Stevens
Henry Scott
John Kobbe
Bill Lee
Jack Henderson
Bill McCord
Irwin Ashenbrenner
Dick Rhiger
Earl Scott

— THE BIN. —

Nearly every department has had new people come in during December or January. To help get acquainted, we'd like to introduce them here: **Crt** has Selma Bergman, Betty Dawson, Margaet Claus, Aino Oluri and Laine Pettai. **Kit Prep's** new additions are Vera Coolidge, Salme Soot, and Lorraine Loggins. **Ceramics** has Janet Hoodenpyl, Janet Ruhlin, and Ingemar Stromberg. **Capacitors** added Art Peterson. **Cables** has four new people: Dorothy Breazile, Mary Losli, Violet Mills and Josephine Sanders. **Accessories** additions are Grace Sherbeck, Mary Breazile, Al Hand and Marie Jungels. Esther Cookman can be found in **Coils**. **Mechanical Assembly** has Marianne Guffy, Annabelle Harms, and Vincent Van Domelen. **Unit Wiring** has had the largest increase: Phyllis Birchard, Rose Evans, Jerry Gillaspay, Roycille Hartshorn, Katherine Hoskin, Jeneva Kent, Marjorie Montague, Dorothy Muhly, Elsie Rice, Neppie Swanson, Charlene Tompkins, Mary Trussell, Kathleen Washam and Beatrice York, in December; Joseph Almand, Eleanor J. Brunswick, Stella Bryant, Eileen Cagle, Lucy Davis, Shirley Davis, Frances Drapcak, Robert Elliott, Pat Feuerborn, Margaret Hauman, Jean Kopra, Evelyn Meyer, Joyce Neiland, Barbara Sullivan, Dale Weber, Maryln Wolever, in January. Returned to **Finals** is Bill Mayer

Shop is expanding, too. Barbara Byrne, Melvel Dixon, and Lisa Schmalenberg came in December. Robert Barber, Betty Bohall, Arthur Comstock, Joe Jameson, Aloha Jerinigan, Peter Rothacher and Bob Sheets in January. Pauline Regan edged into the January group on January 30th. **Stock** has Boyd Lewis, and Corona Barkhurst in receiving. **Test** has increased, too, by Harold Carter, Bill Pavia, Frank Berta-

lot, Bob Nelson and Bill Yerkes. **Maintenance** claims Frank Amer, Ray Leeto, and Floyd Rohrer.

Field Engineering has Katherine Case, Helen Solem, Marvin Crouch, and Judy Giesbers. Marking time in **Training** group are: Martha Anderson, Opal Barth, Alice Dahl, Charlotte Demke, Dianne Holt, Helen Kilgore, June Neal, Artie Nelson, Lucille Powers, Lea Thompson, Louise Tuller, Genevieve Weisenbach, Carroll Wright.

This is a lot of new names and faces, and sort of all at once, too. But it's nice to welcome all of you. Hope you like us and enjoy working at Tektronix.

To: TEK TALK
From: George Edens—Chicago
Subject: Joan Karcher, Wedding, Cleveland

January 28 was the day and Bay Methodist Church, Bay Village, Ohio, was the scene. Joan Karcher, Tektronix Cleveland Field Secretary, became the bride of Walter E. Riemenschneider. Walter and Joan are apartment dwellers now at 3215 Rocky River Drive in Cleveland, within a long walk of our Cleveland Office.

Walter is building a business career with the Deep Sea Food Company. The professional skills he is now acquiring at Cleveland Marshall night law school will serve him well in his future business ventures. The best of wishes to you, Joan and Walter!

Temperature Control in bakelite department:

Ida Smith's lists for parts in bakelite department are being listed from 'Hot' to 'Cold': Real hot, very hot, not so hot, etc. At least she knows which to do first.



Rodgers Jenkins, engineering, ran a towing service for Tektronix guys and gals who were stuck in the snow on March 5th. He was a welcome sight in his red, four-wheel drive, Willy's jeep, and his services were much appreciated. Thanks, again, Rodg!

Dave Spinks was a little tired on Tuesday morning, March 6th, but that was half from working to get his brakes unfrozen, and the other half from sleeping in a strange bed. He reports the bed in First Aid was very welcome by the time he turned in, and really very comfortable. He promises not to make this a habit, tho, he's just not going to set his brakes so hard in real cold weather.

Bob Herren was glad to be working inside around assembly, etc., during the cold and snow on the 5 of March. Heating problems in the new quarters he was occupying (so printing could have more room to get out the catalogs in time for the IRE show in New York) were rough. He wished it was an igloo, the wind was so sneaky about getting in.

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