

Contest of The Year!

TEKTRONIX CREDIT UNION SLOGAN CONTEST FOR EVERYONE

All you have to do is, in ten (10) words or less, write a slogan that best advertises the Credit Union as **THE PLACE TO GO** for low-cost loans and investing savings.

PRIZES WILL BE:

1st Place —	\$10.00
2nd Place —	5.00

RULES:

1. Contest eligible to all employees of Tektronix, excepting Officers of the Credit Union.
2. One entry per person on Official Entry blank.
3. Contest closes March 20th.
4. In case of duplicate entries, the one bearing the earliest date will win.

Additional blanks may be obtained in the magazine racks by the bulletin boards.

A panel of three judges from the management will pick the winners. The winners will be announced in the April 5th issue of **TEK TALK**.

Hankering Herpetologist Has Hissing Alligator Anticipating Angleworms

Anyone having easy access to succulent earthworms or knowing the denizens of easily caught crayfish, please contact Reggie Green in assembly.

If you think this has anything to do with the care and feeding of a baby alligator, you're right. Nostalgic for Africa, Reggie settled for an alligator (they really have crocodile's there but who wants a crocodile and besides they bite.)

Boning up on herpetology (that branch of zoology relating to reptiles) and haunting the tropical fish store, Scylla arrived on January 11. She was duly christened from Greek mythology as she resembled the picture of the monster who was turned into a rock. This part is simple but try keeping an alligator pet a secret from your landlady and fellow apartment dwellers (with mediocre pets like canaries, goldfish and ordinary cats.)

Scylla was smuggled and the secret is still kept until an eviction notice is posted and until she is sufficiently mature to create an adult noise (alligators hiss and snort). Reggie fashioned a box containing a pan of water, a box of sand and overall a sun lamp. This Floridian-exposure manages a constant Everglade temperature between 80 and 90 degrees.

Returning to herpetology, alligators are carnivorous, and infants

thrive on a twice-daily feeding schedule of fish, crayfish, frogs and Scylla has developed a tolerance for worms only. But supposedly more docile than their cousins, crocodile or gavials, they can be domesticated (the lady said so, honest) and Reggie is shortly introducing her pet to liver and hamburger. Depending on the size, Scylla wolfs down 6 average-sized earthworms per day.

And how big do alligators get? They are 8" at birth and Scylla is now less than 11" long which proves that she is less than a year. They grow 8" the first year and then there is a gradual acceleration as they vary in their growth patterns. At six years they are supposed to be 6 feet long. They have been known to reach 18 feet in length and possibly even 20, though at the present time it rarely exceeds 12.

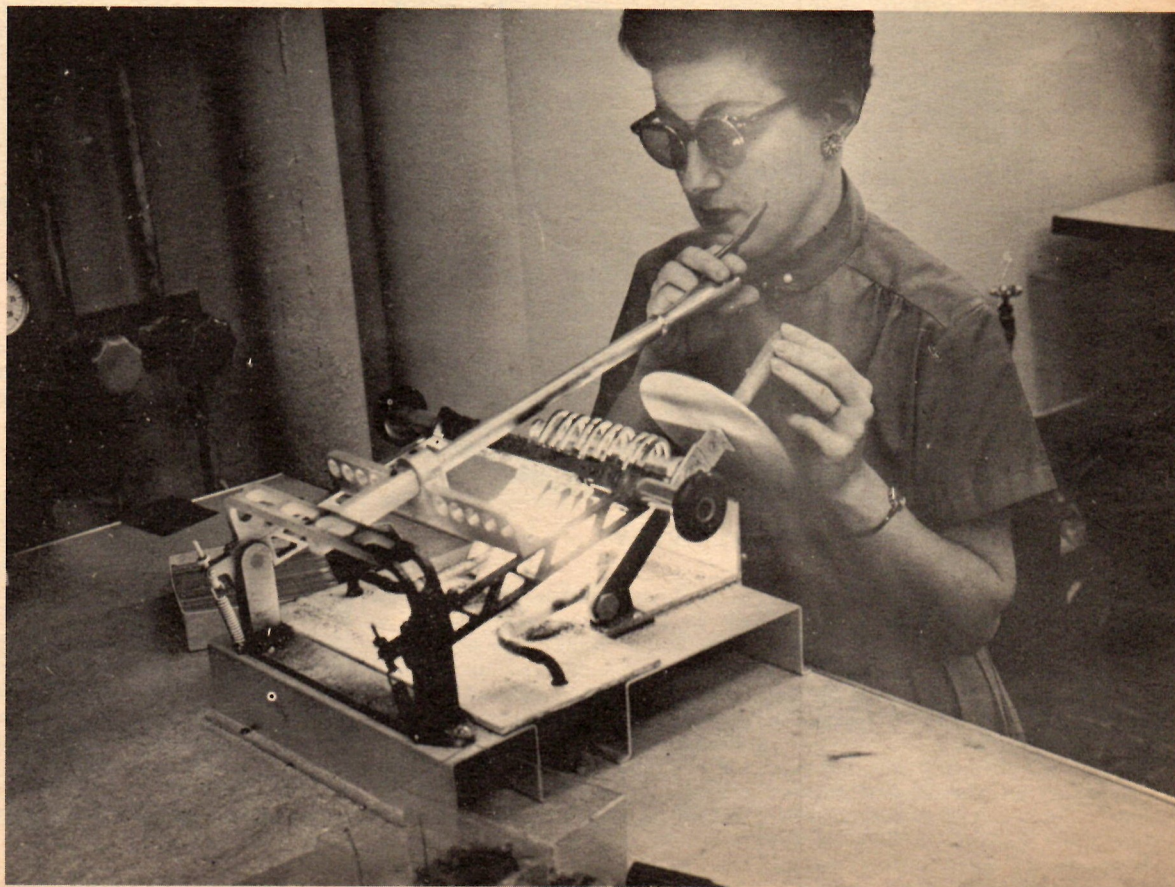
Shortly after Reggie acquired her alligator she ran out of worms and with Lois Campbell (assembly) tried to find some one evening. Walking from 12th and Jefferson to the downtown area she finally purchased some goldfish but could not bear to give Scylla live cannibalistic bait so they let him hiss. The only solution was a worm farm in Beaverton as the back yard produced nothing but one lone occupant. This worm farm has proved the source of supply but any offerings will be gratefully hissed or lapped (I mean snapped) up.

Harry Allison Takes Cy Corn's Post as Prof of Struggling Electronic 'Basics'

Harry Allison is taking over for Cy Corn as instructor for the Basic Electronics classes. We're going to miss Cy and that unique verbal delivery he has. Patience, wit, plus good humor are invaluable to a class such as ours, and we certainly appreciate the liberal amount you gave us. Yep, that's us Western Yankees talking, Cy, and we mean it.

Harry, we welcome you! Hope

we don't give you too bad a time of it. We are very sincere about learning all we can about the working end of an oscilloscope, but we get our SIGNAL? crossed now and then. Our talk is being punctuated by words like frequency, cycle, sine wave, etc. Sounds sort of authentic, anyway, even if we don't know much about them as yet, so good luck in your new class Harry!



Virginia Levens puts the finishing touches on a gun assembly. Here the metal parts of the electronic gun parts are spaced and aligned accurately. Finally parts are held permanently in place by sealing pyrex glass rods into pins attached to the gun parts.

Tek's CRT Department Discloses Tube Preparation Technique Step By Step

CRT is the familiar designation in Tek's jargon for the cathode-ray tube department but to many an employee and visitor it is a laboratory land of bottles, no smoking signs, white coats and mysterious preparations. In this issue of Tek Talk we hope to explain non-technically some of the functions and processes in this vital department.

Production in Tek's tube department is a new innovation during the last year. All of Tek's new instruments are keyed to our tubes—the 531, 535, 541 and 545. After a slight modification the 513 and 517 will use our tubes. The ability to specify certain features in our tubes allows the instrument designers to get performance out of Tek's instruments which would otherwise prove impossible, since these features could not be found on the market. Hence this essential part of Tek's plant was installed first, for quality; secondly, it offers complete control over alterations and modifications in design; and thirdly, it is more economical.

Now, how do we get a tube? Initial step is the purchase of the bottle or envelope made to our specifications from one of two industrial glass plants: Lancaster, Ohio or the Corning Glass Co. in New York. Then come the various stages in the production.

First comes the bottle laundry which is one of the critical steps. The bottle is chemically cleaned by a detergent, etched in a bath of mixed acids, rinsed in tap water, repeated washings in de-ionized water and finally acetone.

Next is the winding of the helix, the fine black line that spirals around our envelope. If this were a straight line it would be 40 feet in length. It is the post deflection accelerating device (it speeds the electrons up after they have been deflected by the sweep signal.) and is

unique to our tubes. Much interest has been displayed by other companies in Tek's helical winding since it produces much less pattern distortion than currently used devices.

Now the bottle is ready for depositing the phosphor which is the light producing material on the face of the tube. Customarily Tek uses four different types of phosphor, and makes as many as six, also is able to produce any type necessary for certain specifications. The two factors taken into consideration are the persistence of the light after the signal has passed, and the color of the light.

The final phase is aluminizing. A thin layer of water is poured into the bottle and on top of this a film of laquer is cast. The water is poured out from under and the laquer film dries on the phosphor crystals. This sometimes proves to be one of the most difficult and critical of all stages and frequently has to be repeated several times. When a satisfactory screen has been made, the bottle is given a final inspection and is then ready to have an electron

gun sealed in. The electron gun consists of a heater, cathode, grid, anode and a focusing electrode plus a set of horizontal and a set of vertical deflection plates. These parts are assembled in a jig and then fastened together with pyrex glass rods. The gun is finally inspected and adjusted before going on to be sealed into completed envelope.

John Liedtke and Derrol Pennington who head up the tube section have divided production into four parts. First, preparation and supply which involves preparation of small parts, chemical solutions, ink for helix, electro-polishing, lead coating for the glass rods and so forth; second, preparation of the envelope, winding, aluminizing and phosphor-settling; third, assembly of the gun parts; and fourth, putting the gun and envelope together, pumping out air, activating the cathode, sealing the tube off, putting the base on and finally checking the tube.

Every phase in tube production is one of responsibility—each successive step is dependent on the last.

Tek's Southwest Representative Builds New Plant in Calif. for Headquarters

Neely Enterprises, Tektronix's representatives in Arizona, New Mexico and California have just put out a news release on the construction of a new office building which will serve as their headquarters located in North Hollywood, Calif.

The property, over an acre in size, is located on the historic site known as Campo de Cahuenga where, in 1847, General Pico for Mexico and Lt. Colonel John C. Fremont representing the United States, signed the Treaty of Cahuenga which ended the fighting for the possession of

California.

The building will be especially designed for the display, servicing and warehousing of electronic equipment. An important feature will be a laboratory display room which will offer operating displays of the latest electronic devices. Additional accommodations include a kitchen facility and an entertainment room with a large brick fireplace. Construction is now well under way with April given as the completion date.

* * *

"Of Baby Shoes and Sailing Ships and Hobby-Crafts and Things"



ROSE and BURT AVERY

Tek's twosome for this month are both native Oregonians. Rose (assembly) has worked for Tek since August of 1949 and Burton (Burt) Avery (transformers) gave up the sea in August, 1951 to become a landlubber at Tek.

Burt started with the merchant marine as an able bodied seaman during the war and served on tankers in the Pacific. In 1945 he was promoted to third officer on the American Mail Line on freighters between here and the Orient. April 30, 1949 was a red letter day when Burt and Rose were married. Rose started working for Tek in August of that same year while Burt was away at sea. Two more years and Tek had its twosome. Burt's brother and father both serve in the merchant marine.

Daughter Nancy Lee, age three makes this issue of Tek Talk also

in the Junior Parade. Biggest plans are in remodeling their house in West Slope. Nancy Lee is to get a bedroom, the kitchen and utility room are to be redone and a new double garage completes the construction plan.

For hobbies, Burt describes himself as a sports fan—he is a full-fledged member of Tek's basketball team and an avid dog race enthusiast. Rose is one of the struggling members of Tek's basic electronics class and for an opposite diversion has just completed a course in interior decorating. For the last year and a half she has been dabbling in ceramics and is now working towards the purchase of a kiln. This hobby provided all of her Christmas gifts and she is now making the tile for the bathroom and kitchen in the Avery's remodeling project.

Newcomers Transfers and Terminations

Al Creoni in photography, Ole Adamson and Dale Tyson in stock. Rachel Reeder joined manuals; Beverly Renner, ceramics; Margaret Smith, coils; and Don Sherrod, test. Assembly has a lot of bright new faces—Jewel Umbreit, Sharon Guthrie, Margaret Ryan, Sarah Kaskinen, Glen Sherwood, Catherine Rolfe, and Norman Larabee. Field engineering office newcomers are Jean Hanson, Helen Helmich, Ada May Wilson, and Yvonne Hoffer.

WE ARE MISSING:

Marian Arnold from manuals. Marriage February 12th to Don Calnon, engineering, puts homemaking first with Marian.

WHITHER THOU GOEST:

Agnes Clifford, assembly, is leaving to be with husband Don, field engineering, when he is transferred to the Chicago office.

HUP! TWO-THREE-FOUR:

Dennis Kidd answered the call in January, and Donna will be making arrangements to be with him after pre-flight indoctrination, if possible.

IT'S THAT CLIMATE:

Lang Hedrich, engineering, moved over to Phoenix, Arizona and Airesearch, Inc. He claims they have 290 days of sunshine per year, and his family can use it to advantage.

REMARKS I LIKE TO REMEMBER:

To be caught without good manners is to be caught half dressed.

When things go wrong---one person is to blame if I don't do something about it---me.

You're always in a position to have better posture.

Look at the clouds more often, it makes you hold your head a little higher and besides, you get rid of that double chin.

Office Girls Meet At Hostess House

Thirteen office girls met at the Oregonian Hostess House on Saturday February 12 for the Annual Workshop sponsored by the Oregon Trail Chapter of the National Secretaries Association. (We all thought it would be sort of routine stuff.) Seven of the most outstanding people you ever hope to meet gave us loads of useful, practical, workable knowledge you couldn't get anywhere else. Viewpoints ably expressed by top key people from banks, colleges, schools of commerce, a fascinating Psychologist, and down to the finishing touch of 'tips on grooming' (Maria Easterly, herself). Laughter was served us on platters of enthusiasm, compliments, witticisms, and meaty remarks.

The foundation for, structure of, and finishing touches expected of a secretary (or anyone for that matter) were laid out for us in the easiest way to be assimilated—with wit, humor, and lots of understanding.

We all felt the warmth and humanness of their wonderful personalities. They impressed us with the need management has of our loyalty, discernment, resourcefulness, reliability, tactfulness, and very important—our good nature and sympathy towards our relationships both with management and our fellow workers.

We all came away with an inspiration. (And we still bring up the point we were most impressed with, both with understanding and—a giggle).

Our sincere thanks to Tektronix for sending us:



CONGRATULATIONS TO UF. They can be rightfully proud of a job well done. Portland raised more money and managed to do it for less (3½%) than other cities. A 'Summary of the General Fund Balance', giving totals and explaining balances, etc., is on some of the bulletin boards. Page 3 and 4 give 'Details of Payments to Agencies During the Year 1954'. Interesting and informative. George Roussos squired Irene Garvey, Blanche Cook and Norma Caufield to the United Fund dinner-meeting held in the Multnomah Hotel Ballroom on February eight as Tektronix representatives. (By the way, George says he was a 'knight for a night'. See definition of: squire.

Tek Talk's Junior Parade



Marsha — age 2



Carolyn — age 4



Elaine — age 5



Shelly — age 7



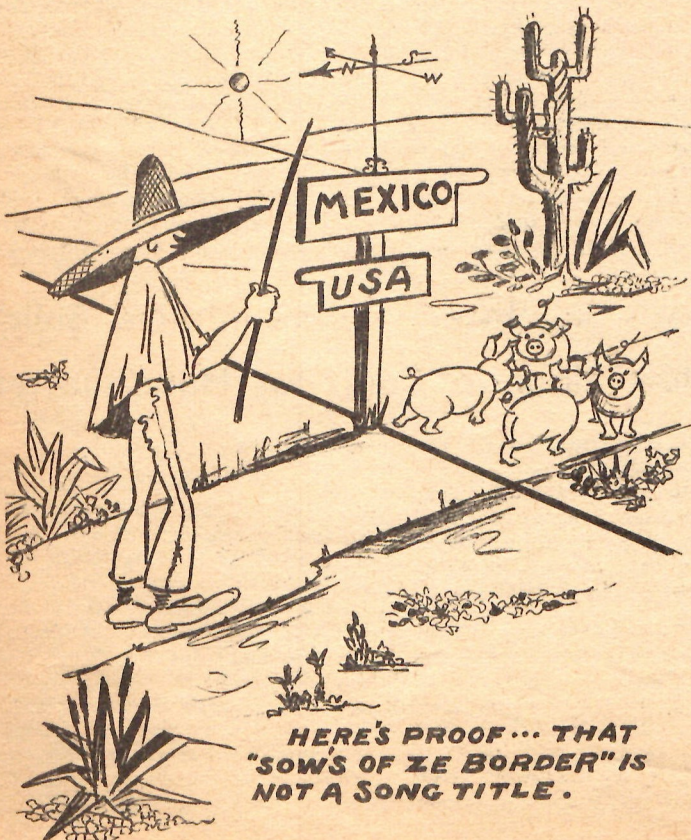
Kenneth — age 8



Nancy Lee Avery — Daughter of Rose and Burt Avery — assembly, and transformers, respectfully.



Robert C. Allison — Son of Harry Allison in test.



HERE'S PROOF... THAT
"SOWS OF ZE BORDER" IS
NOT A SONG TITLE.

Basic Electronics II: Eddie In Power Land

By Lloyd Sharp

In the last issue, we met Spinning Eddie the Electron and saw how he behaved in electric and magnetic fields when they varied. We left him in the core of an oscilloscope power-transformer, just after the power had been turned on. Well, our oscilloscope has had a month to warm up now, and the test man is just getting around to adjusting the sweep circuit (slow, ain't he?); but before Eddie can partake in these shenanigans, he must take the "treatment". Let's see what happens to him in the power-supply circuits of our scope. These circuits convert alternating current into assorted direct currents at potentials up to several thousand volts, for use in the vacuum tubes.

Urged by the currents flowing in the chassis of the scope, Eddie moves onto a mounting-bolt, down it to the chassis. The currents are strong here, and he is carried along, skipping merrily from atom to atom, heading for the nearest point of high potential, just as water runs downhill.

Now wait a minute; what's this "potential" business? What is an alternating current, and just what do I mean by "conduction"? Don't go away. These things are basically no tougher than sucking soda through a straw, pushing your youngster in a swing, or watching him coast down a snow-clad hill.

In metals, a small portion of the atomic electrons are loosely bound, and are free to wander if pushed. In non-metals, practically all the electrons are tightly bound to their atomic posts of duty, so an electric current can not pass through them (that is, a direct current can't. But more about that when Eddie gets onto the plate of a capacitor.) We call this latter class of materials "insulators", or non-conductors. Metals exhibit varying degrees of conduction, but in general they are to an electric current what a straw is to the soda you suck through it. The larger and shorter the straw, the more soda you get for the same amount of pucker. The thicker and shorter the wire, the more electric current will flow for the same potential drop, that is, voltage. A long, thin wire offers a lot of resistance to electric current just as a long thin straw makes you suck harder to get any soda. Current, voltage, and resistance are simply related by Ohm's Law, which we won't go into here. Anybody who wants to can look it up.

About potential, ask your youngster if it's hard work pulling his sled to the top of a hill. Of course it is. He has to work to increase his grav-

itational "potential", but he gets most of that work back in speed coming down. It is much the same when you push Eddie into a region where there are already too many electrons. He pushes back, and you have to work to get him there. You have increased his potential. When the pressure is relieved, he promptly heads "downhill" electrically, losing potential as he goes.

At this point, an old custom steps in to louse up our meaning. Before men like Ohm and Faraday knew any better, they labeled an absence of electrons a positive potential. So we have a ludicrous situation: electrons falling all over each other to get to a region of "high" potential. This isn't the cart before the horse, this is the horse walking backwards. But the convention stuck, and we're stuck with it to this day. So Eddie "falls" toward points of "high" potential.

When you push your child in a swing, watch him. He alternately exchanges height for speed, and speed for height. His gravitational potential is oscillating, and his energy is alternating, first forward, then backward. By the same token, if we swing a wire back and forth between the poles of a horse-shoe magnet, the electrons in the wire will be pushed back and forth, forming a tiny alternating current. This is precisely the principal for using alternating current generators work. Our principle original reason for using alternating current at all is that it can be stepped up and transmitted efficiently over long distances. We have found many other reasons since, as you will see shortly. Now we are prepared to understand what happens next to Eddie.

Leaving the chassis, he skips up a copper wire, where the going is easy, and suddenly finds himself in a composition resistor, where the going is extremely tough. There are literally billions of obstacles placed in his path, and the change of potential along this path is extremely rapid. At the end of the resistor, he jumps to a short wire, follows it onto a tube-socket pin, and up the cathode terminal into a vacuum tube. It's pretty hot in here—red hot, in fact; and for a good reason. One epic day years ago, Old Man Edison discovered that a red-hot piece of metal gave off electrons! And that's the job of a vacuum-tube cathode, to give off electrons AND NOT LET THEM BACK IN. This one property makes a vacuum tube a sort of electronic flap-valve, in which the current can flow only one way. We've learned a few things since Edison's day, so we coat our cathodes with Thorium oxide to make them emit electrons at a lower temperature, thus saving a lot of waste heat.

This particular tube is a simple one, just a cathode and two plates, a 6X4 rectifier. Rectifying is a process of converting alternating current into direct current, and is basic to any electronic device which must work off of our ordinary lighting circuit, which is 115 volts AC. Let's see how this is done:

Remember how Eddie danced in the core of the power transformer? Well, if he were in one of the secondary windings of this transformer, he'd be dancing even more, long swooping steps of several hundred volts back and forth. He would be driven to these extremes by the changing magnetic field in the iron core around which this secondary is wound, just as we might expect from the basic field-relation we sketched at the beginning. This process we call "induction", and is widely used in electric machinery. In brief, it goes like this: We feed alternating current into one winding of a transformer. This changing current forms alternations of magnetism in the core. This changing magnetism induces currents in the other windings. By simply watching the number of turns we put in each winding, we can step the voltage up or down just as we please. The power transformer of our oscilloscope has several such secondary windings, but we will confine our attention to just one, the center-tapped one which helps furnish —150 volts.

The extreme ends of this winding are connected each to one of the plates in the tube where we left Eddie last. The center-tap is a wire leading from the half-way point of the winding to the —150 volt supply.

This arrangement drives first one plate positive and then the other, and Eddie jumps from the cathode to which ever plate swings positive just after his arrival on the cathode. Here he begins a sort of "rhumba" along the winding, always progressing toward the center-tap as more electrons are pumped onto the winding behind him, always crowding, crowding. And Eddie hates crowds of this kind.

At the center-tap he meets another crowd of electrons coming from the other half of the winding! His only avenue of escape is down the center-tap to a large capacitor, a sort of electronic expansion chamber which smooths out voltage changes something like a shock absorber smooths out bumps in the road. Let's ignore such subtleties as the differences among electrolytic, mylar, paper, ceramic, and variable capacitors, and say simply that a capacitor is two sheets of some conducting material with a layer of insulating material between. The insulator is a barrier to the passage of electrons, but not to the field they set up. Electrons can repel one another right thru an insulator without themselves passing thru it. Thus a capacitor behaves as a conductor for pulses only. We use scads of 'em in an oscilloscope, all kinds. The capacitor containing Eddie at the moment is taking the pulses out of the —150 volt supply, conducting them to "ground" (the chassis), and leaving the supply nearly ripple-free. This is called "filtering".

There are other processes called "feed-back" which we use to reduce this ripple even further, to a mere few thousandths of a volt. This is necessary to keep unwanted waves out of the oscilloscope tube.

We are now ready to put Eddie to work in earnest. There are many places where Eddie can go now, such as trigger, sweep, or vertical amplifier. Maybe you don't dig these terms now, but you will, you will. In the next issue we will chase Eddie thru the sweep generator, see how we get results by frustrating the little devil, and finally, into the picture tube itself.

CRT Gals Digest Own Cookbook

A vote isn't necessary—all you have to do is follow your nose to the crt during the lunch hour. Those wonderful savory smells are the results of 15 women vying with each other for the best daily hot dish.

This section started some time ago by each of the women taking turns bringing a hot dish. It started with soup and has continued all the way through to a sumptuous dessert. Highlights have been borsch, clam chowder, torte—almost any day it's a specialty of the house.

A foreign flavor is added with three Estonians competing with their regional specialties. Erna Normet's torte, Anna Haas' cabbage pie and Velma Leeto's cheese cake, rolls and other bakery goodies.

Now plans are being made for a cook book which will be a collection of family favorites, and they have made a firm promise that extra copies will be made available for any Tek employee who might like a copy. (Sorry, the line forms on the right.)

He's Construction - Wise



BILL McCORD

Affable Bill McCord, Tek's construction superintendent has been building in one way or another for Tektronix since 1950 when his first job was superintending Howard Vollum's home. Bill contracted for this job which he supervised morning, evening and weekends while doing his regular job for a local building contractor as superintendent on a school contract. His next job for Tek was building Panelcraft at Sellwood. In August, 1952 came the addition to the machine shop at Tek and we are still expanding. Bill is now on Tek's payroll and on a permanent consultant basis with the company.

Born and reared in Oklahoma, Bill's father was the construction superintendent for the Texas Company in Oklahoma and Kansas. Bill attended Oklahoma University where he specialized in a general course of home planning, drafting and construction. Background for experience in construction came with work in a retail lumber yard for three years where he served as manager for two; payroll and personnel director for the Texas Company for Kansas; and west with many other mid-Westerners in 1942 to the Kais-

er shipyards. After the war he started his own construction company and worked for other contractors until Tek and Bill contrived to meet.

Marrying a fellow Oklahoman in 1943, Bill and Lois, his wife have four children: Bill, Jr. (a full-fledged member of McCord Construction Co. and on Tek's basketball squad), Judy (16), Diane (9), and Jill (8). Building their own home in Oswego which is "still in progress", they live on one of the lake's meandering canals with 3½ acres of land and a horse which is the family's love and principal project.

Bill's answer to hobbies came very quickly—"Basketball and Tek is tied for first place in the Industrial League." By the time this issue has gone to press Tek hopes for the number one spot.

Other relaxations are fishing, hunting and camping. Ping Pong is a family tournament. Organizations to which Bill contributes time and energy are the Greater Portland Management Club and the prerequisites of parenthood—the Lake Grove parents association and the Oswego Dad's Club.

--- THE BIN ---

SIGNS OF SPRING—

Byron Broms' new desk sign "ASSISTANT INSPECTOR OF BEAUTIFUL BABES", and Dal's "FINAL INSPECTOR OF BEAUTIFUL BABES". Never a dull moment around the front office.

Around Tektronix it's ORCHIDS pinned on you for GOOD DEEDS DONE TO OTHERS. (Guess I'll try a little harder. I like orchids, 'specially pink ones.)

The last of January the crt department met at the Mandarin for a no-host Chinese dinner. (Could be this helped along ideas for those wonderful luncheon dishes prepared by crt gals?)

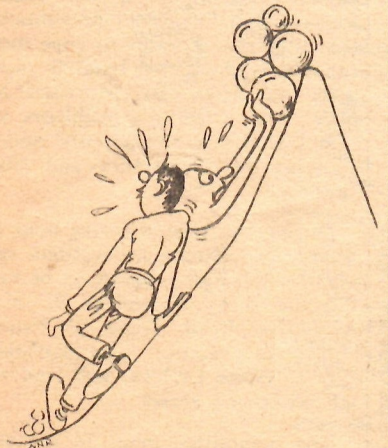
Three days each week, Tektronix will be inspected for fire and accident prevention by one of the department heads. Nice way for all of us to get better acquainted with them, too.

Dwight Loomis, Research and Development engineer, has been appointed to head the physics department at Pacific university for the spring semester, it was announced by President Armstrong the first of February. He is to teach an electronics course. Dwight graduated from Reed college and did post-graduate work at Oregon State college. He also had five years teaching experience at Lewis and Clark college. Tektronix is only "loaning" him to Pacific, so a permanent professor will be appointed for the start of next fall's semester.

Things YOU'D LIKE TO KNOW ABOUT: Marybelle Rash had her heart 'scoped' and gave it to all her friends for Valentines Day.

To Kevin Van Hoomissen who took off on February 23rd. Off they go into the wild blue yonder, Riding low in-to the sand. Off they go into the dust and thunder, Help them boys—give them a hand. Off they go leaving their desks asunder, Off from one terrible sore. You'll really bake, it's just a fake, Hold your noses—we're headed for Moses Lake. Look out Air Force. Here comes Kevin—Zoom!

Darlene Adams has a new address (really getting around). She and some of the men from Georgia have been stationed in Washington, D.C. since February 19th. She writes, "Washington D.C. is a wonderful place, and so many things to see. We are stationed right across the Potomac from Washington and on our way to town go right by the Pentagon, Lincoln Memorial, Washington monument, and the Atomic Energy Commission. Haven't seen the White House yet, but the weather is just like Oregon's right now. Wet! No sunshine for pictures, so I'll wait. I'll be going to school anywhere from 1 to 23 more weeks. I would certainly appreciate any and all letters I might receive from you people, so my address is": Pvt. Darlene G. Adams WA8610258 WAC Co. 8617 PN Arlington Hall Station, Arlington 12, Virginia



Tek Talk

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Better Business Relations

Many of us enjoyed reading about our overseas trade growth in February Tek Talk. Probably everyone is interested in the why of this growth. In 1952 our genial Dal (W. K. Dallas, field engineer manager, to the uninitiated) made a trip to Europe visiting many people in 14 major cities in eleven countries. As an indication this trip was worthwhile, our export business grew to about four per cent of our total business in 1953 and to eight per cent in 1954. Another illustration is Byron Brom's visit to Japan in July 1954. Our business in Japan in our whole history was only about \$20,000 before July 1954. Subsequent to Byron's visit our business has amounted to \$50,000 in only about eight months.

In addition to the increased volume of business, these visits of Tektronix people to foreign countries brings closer understanding. We then have a much more mutual satisfactory working arrangement. We can gain a better understanding of our representatives as people and know their problems and feelings. The personal contact is very helpful to them in knowing more about us. These benefits are also realized when our overseas representatives visit us here in Portland.

From comments by our overseas representatives, the excellent support work by Emma Langdon and Orpha Enmark here in our field engineering department's Export Group plays no small part in making this expansion possible.

During foreign trips, prospective representatives have expanded to the point that this year two people are making trips after the IRE Convention in New York in March. Howard Vollum will visit England, Italy, Switzerland, France and Belgium while Dal visits Norway, Sweden, Finland, Denmark, The Netherlands, West Germany, Yugoslavia, Austria and Spain. Howard will be back in Portland in May and Dal will be back in June. We all hope they will have happy, pleasant and worthwhile visits in all these countries and return home safely.

Bon Voyage, Howard and Dal!

Inter-Office Communication

To: All Hands

From: Betty

Subject: "Deah old Bawston"

I arrived in the land of "baked beans" seat-sore and weary after what seemed like months and months of traveling, but which was only in reality, approximately two weeks of **high adventure**? Little did I know when I reached our Bronxville office what awaited me. My cloths and wordly possessions, (one tattered copy of "The Bobbsey Twins in Bronxville") were resting peacefully in Cleveland, I was in New York but supposed to be in Boston. After all the strings had been pulled I boarded a train at Grand Central Station, "cross-roads of a million sompin or others", and was on my way to what I hoped would be my final resting place. Amen! I arrived in Wellesley, Mass. where accommodations had been arranged for me at "The Wellesley Inn". I've never seen a quainter fire-trap in my whole nineteen years. It was absolutely antique. I thought Jack Cassidy was kidding when he told me they had rope slings in the rooms to use as fire escapes, but lo and behold, what should greet my eyes but 30 ft. of rope, coiled neatly above the bed-post with instruction on how to use the contraption. I collapsed in laughing hysterics on the bed and such was my first evening in Massachusetts.

I commuted between Wellesley and the office in Newtonville for one week, all the time looking for an apartment after working hours. By the time the second week rolled

around I was getting pretty sick of hotel life, I kid you not, so Janice Reynold's mother very graciously took me in till I could find something. Then I started taking the bus to work. Ha! The first morning I got on the wrong bus and ended up by Harvard University which is at least 6 miles from work—I wasn't particularly uncomfortable being in the midst of a few thousand or so men, but I decided that perhaps I should try to make it to work by 11:00. Soooo, I got on a train that supposedly went through Newtonville. Finally found out from the conductor that I had boarded what is known as an "Express". Only stops every 20 or 30 miles. I ended up so far out in the country if I'd had a picnic basket with me I could have really made it a day. Oh yes, mustn't forget to mention at this point that the temperature was a chilly 15 degrees. By this time I decided to completely forget economy and head for the nearest phone and call myself a taxi cab. I arrived at work around 10:30, much to Vic's amazement. He didn't think I was going to show up at all. I was thrashed soundly with a P170 coaxial cable for being tardy and then we had coffee.

As for Boston being dull—don't let em kid you! They have some of the neatest dives you ever... Woops, phone's ringing. G'Bi. As always,
Boston Betty

BRONXVILLE PERSONALITIES EXPOSED FOR FIRST TIME!



JACK CASSIDY

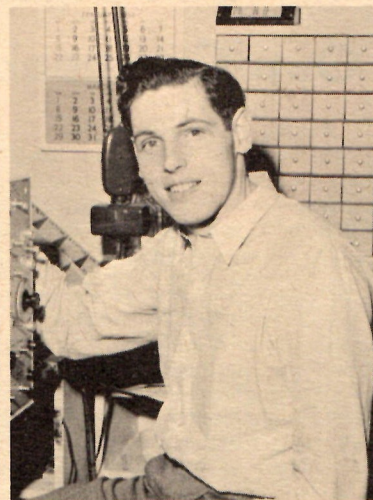
Jack lives in a house in Old Greenwich, Conn. with wife, Norma and sons John (13) and Robert (6). (Old Greenwich, Conn., by the way, is 45 miles from Greenwich Village, which is in New York City—they are not even related!) Jack drives 20 miles (40 minutes) to the office when not calling on customers in

Western Connecticut or visiting another Field Office or opening a new Field Office. Says he prefers living in Conn. to New York on account of: (1) taxes; (2) makes him a New Englander; (3) puts the family close to the Cassidy summer camp in Wolfeboro, New Hampshire.



FRANCIS FROST

Francis lives in a Yonkers, N. Y. apartment, about a mile from the office, with wife, Margaret, and daughter Nancy. He has again taken up ice skating and works now and then on Hi-Fi equipment. Also plays golf at Sprain Lake Golf Club, nearby. Francis puts plenty of miles on his Nash covering Manhattan (New York City) and Northern New Jersey for Tek. Expects to almost own Bell Telephone Laboratories some day!



PAUL HANSEN

Paul lives in Bronxville with a Danish family and walks to work, a distance of about 0.5 miles. He likes to greet Danish friends arriving in New York City by boat. When not in the office working on scopes, he is found in the office anyway, working on radio and TV. Claims he likes it! Has one old Pontiac with two recent fender dents (he wasn't even driving), and one old motorcycle for sale.



FRANK THOMAS

Frank lives with his wife, Maxine, in a Yonkers, N. Y. apartment, located about a mile from the office. Two more incentive checks from now, they will have all the necessary furniture! Frank is an expert at Bingo, as any elderly lady at the Hotel Gramatan will testify. He finds skiing in the New York area much worse than in Portland—more miles to drive and fewer inches to ski on. Inbetween calls at IBM, Poughkeepsie, N. Y., Frank covers Long Island, including Queens and Brooklyn (two more of the five New York City boroughs) for Tek.



MARGARET JOHNSON

Margaret lives in Yonkers, New York, a ten minute walk to the office. She and her husband moved to Yonkers from Plainfield, New Jersey (after 20-odd years) at the time TekNY moved from Manhattan to Bronxville in 1952. (Manhattan is one of New York City's five bor-

oughs—very crowded—and Bronxville gave us breathing and parking space.) Margaret likes to read and fancies Doberman dogs. Also does a bit of fishing. (Note to Howard Vollum: she still doesn't own a television set.)



ALICE HENWOOD

Alice lives in Woodland Heights, New York, which is actually in the town of Greenburgh, N. Y., and drives to work, a distance of about 9 miles. Alice has been in technical work since ERPI (Electrical Research Products, Inc.) day in New York City. (ERPI was a Western Electric sub doing sound motion picture equipment.) She is presently active in Civilian Defense work—third in command in the town of Greenburgh. She also looks after her husband, a seven year old daughter, a dog, and a parakeet.

Pre-School Wisdom Taught To Parents

Parents of pre-school children are to get for free, the undivided attention of Dr. Carl V. Morrison, Director of the Community Child Guidance Clinic, for two whole hours on each of two nights at a Workshop Series beginning March 21st at the Washington High School Auditorium. His first subject will be "The Parent Role with the Pre-School Child", to be presented between 7:30 and 8:30 p. m.; and at discussion during a coffee hour from 8:30 to 9:30 p. m. questions can be raised to be answered at the second meeting.

Dr. Morrison is a popular child psychiatrist. His interest in the problems of children and parents is professional and sincere. This opportunity for anyone with pre-school children to hear him is their chance to have that "ounce of prevention", that they may be able to cope more capably with the individual problems that arise. Dr. Morrison believes that children's problems are best solved thru the parents' understanding of themselves and their children.

During the second coffee hour on March 28, discussion sections will plan for the Fall program to be held October 3 to November 7. Mrs. Katherine Read, Head of Family Life and Home Administration, Oregon State College, will lead the fall workshop series.

The committee plans to recommend that the workshops be offered several times each year, if enough interest is shown in this initial effort. Any person interested in pre-school children is invited to attend any or all meetings. There is no charge.

Rita Woodbury, Tek Editor, vacationing in Switzerland, suffered minor bruises in a car accident on a side-trip to Turin, Italy.