

Volume 3 — Number 18

Employees' Publication of Tektronix Inc.

December 12, 1955

## **Mod Department** As Coordinator

According to Webster, 'To modify is to change somewhat the form or qualities of an object by partial alteration'. An attempt will be made to present herein a few facts of our modification program, which on a day-to-day basis, serves to exemplify this definition.

The modification department serves in the capacity of a group intermediate to engineering and production, whose function is to coordinate and process the details relative to the introduction of engineering-approved instrument changes into production.

### Origin of Change

Requests for instrument change find their way to the mod. dept. from four primary sources-namely: Engineering, the test department, the quality control section, and from assembly and production personnel. Let's consider in brief, the general nature of the requests as initiated by the aforementioned sources.

Engineering and test are primarily concerned with maintaining instrument and associated product performance at a high level, consistent with that which is in accordance with the initial design specificatons and is known to be indicative of quality in electronic and mechanical design. When a shortcoming in performance, or area for possible improvement, is 'spotlighted' by our test personnel or field engineers, a concerted effort is made to bring forth an expedient corrective measure in the form of circuitry revision and component change.

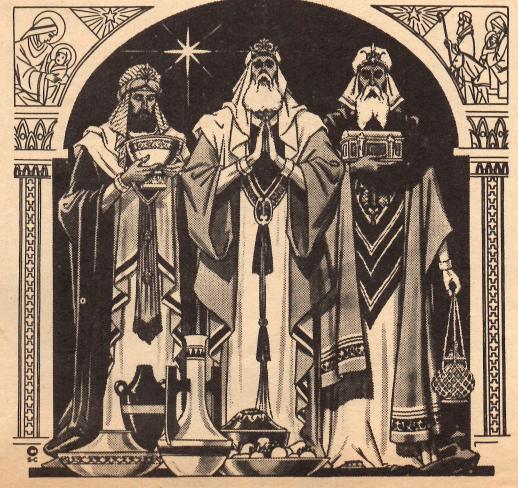
## **Quality Control**

The quality control group carries on a large program of inspection and 'spot-checking' of products of our own manufacture as well as those obtained from outside sources for use here. Should variations from the accepted Tek standards in the quality of parts or services received, or in production techniques employed be observed, a recommendation is made to overcome the discrep-

Personnel in the various production departments, as ultimate users of the parts we purchase or manufacture, are in an excellent position to recognize a possible source of trouble, and by bringing it into focus in the early stages, valuable time may be gained and less effort expended to effect a satisfactory remedy. Enumerable instrument improvement requests received from production personnel have done just

### Engineer's Approval

All suggestions for improvement and requests for change are submitted to engineering and to the production office for approval prior to processing. A change, which by its nature would add to or change the value or location of an electrical ment instruction manual circuit diagram or parts list, would become a formal modification; and as such, would be assigned a mod. number. Non-circuit type changes-those which concern the design or manufacture of a mechanical part, or relate to changes in wiring or assembly techniques—are processed paperwise through the necessary production departments to effect the change, but are not formally written



"For we have seen his star in the east, and we are come to worship him ......

Then Herod, when he had privily called the wise men, enquired of them diligently what time the star appeared. And he sent them to Bethlehem, and said, Go and search diligently for the young child; and when ye have found him, bring me word again, that I may come and worship him also. When they had heard the king, they departed; and, lo, the star, which they saw in the east, went before them, till it came and stood over where the young child was.

When they saw the star, they rejoiced with exceeding great joy. And when they were come into the house, they saw the young child with Mary his mother, and fell down, and worshipped him: And when they had opened their treasures, they presented unto him gifts; gold, and frankincense, and myrrh." — Matt. 2: 7 thru 11

## Santa's Parties Set for Friday

With the Holiday Season so close, the tempo at Tek has speeded up, bit by bit. Due to the exceptional backlog of orders, it was voted by everyone, through the personnel committee, that work will be completed at 2:00 p.m. on Friday, December 23rd, so individual parties can be attended or, those so desiring, may leave at that time. Individual department parties will be held for those now on swing shift, which started again on December 5. An 'open house' is planned for January 3 in observance of Tektronix's 10th anniversary.

## Delay Puts Field Offices On Hook

Jack Cassidy, Field Engineering manager of the Eastern division, is here from Bronxville. In talking to Jack, he said, "All of us in the field have been on a pretty hot spot indeed! Our field office secretaries and our field engineers are hard put to explain to our customers why we cannot ship Tektronix instruments when they need them.

Two things have brought this about: first, our engineers in Portland have created such fine instruments that our customers have ordered in quantities beyond even our most hopeful expectations. Secondly, the present day expansion trends in the Electronic and other industries using our instruments is stag-gering to behold, and multiplys our problem.

While our field people are under fire, our immediate problem is to substantially increase our estimate production rate. I sincerely hope that the same ability, courage, and singleness of purpose on the part of Tektronix people, which has brought about the creation of such fine in-struments as we offer to our customers, will now be directed toward reaching a successful solution to our present day production problem."

as modifications.

## Requirements Notified

The next step in the processing of the mod is to direct the change request to the attention of the requirements section. This group will supply the purchasing department and stockroom with such information as is necessary to add to, or remove from control and stocking, the part or parts whether purchased or Tektronix-made.

After the requirements screening has been completed, the authorization to introduce the change into the particular department effected is given to the pre-production group. The members of this group alter the official wiring or assembly samples together with any existing paper records that may be required in the production of all the items effected by the modification. The mod department obtains through the drafting department and the engineering model shop, revisions in shop drawings, templates, and jigs as required by the mod. When the pre-production group has initiated the change in the particular instrument chassis or assembly, a modified instrument tag, bearing the modification number and a brief description of the change together with the starting serial number, is attached to alter the test department of the change. (Continued on pg. 3, col. 3.)

# Industrial Set

Tektronix is playing this year in the Industrial League of the Portland Basketball Association and is presently leading the league of eight teams with 4 wins and no defeats.

The remaining schedule for 1955 is as follows: December 14, American Sheet Metal at Cleveland High School at 8:15; December 21, Os-School at 8:15; December 21, Osborne Electric at Jefferson, 9:20; and on December 23, Carnation Milk at St. Johns Community Center at

A welcome is still extended to anyone wanting to try out for the team. Contact Bill McCord in the engineering building for details.

All of Tek's basketball players, 20 strong, poole their money and are going to travel en-masse to Corvallis on December 20 for the big double header. Oregon and Oregon State will be pitted against Northwestern University and Illinois on that eve-

## Basketeers Lead Profit Share on Employee Paycheck Anticipated for Christmas Stocking

record during November, providing a profit share for the month of 80% of base pay, 20% to be held in the Retirement Trust and 60% to be distributed. Your last paycheck contained half of this 60%

The excellent November performance brought estimated profit share ment are being considered, but since half of which has already been advanced to you. The other half will be paid just before Christmas. If you worked during the profit sharing period December, 1954 thru May, 1955, your check will contain a little over 2% of your base pay for that period as a result of the retroactive repeal of a provision of the tax law explained in the September

Altho November shipments were 15% higher than September, the previous record, they were still slightly less than orders received, which equalled the alltime highs set in June, July and October. Usually we expect orders to decline after July. The continuation of this high level of orders has forced us to plan an- prior to his death.

Tektronix shipments set another other increase in number of employ-

To handle these, and to relieve present congestion, a small swingshift will be worked until enough additional space has been provided to allow single shift operation again. Various layouts of building arrangedropped.

Test department has shifted into high gear, and is now handling everything that is fed to them. The engineers temporarily loaned to test have also made this possible..

### Holboke Rites Held

Tektronix lost a friend and a valued neighbor on December 3 with the unexpected death of Henry J. Holboke of 9400 S.W. Barnes Road.

Mr. Holboke moved to this location in 1899 and had been in continuous residence up until the time of his death. The property used for the expansion of Tek's parking lot had recently been purchased by us

## Tek Talk

Published by Tektronix, Inc., 9450 S. W. Barnes Road, Portland 7, Oregon, by and for its employees. Published the 10th day of each month, or nearest working day. Printed by Tektronix

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— Fran Egan

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Unit Wiring for

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— Betty Jones

— Wilma Stapleton

— Corky Hymes

Cables — Margaret Clymens

CRT — Clara Knox

Manuals — Audrey Duyck

Front Office — Yvonne Hoffer

Merry Christmas!

One of our best loved Christmas carols is "Silent Night". It was first sung in the tiny village church of St. Nicholas in Oberndorf, Salzburg, Austria on Christmas Eve, 1818.

The meaningful lyrics were written by Josef Mohr, the assistant pastor. Franz Gruber, the church organist, composed the melody. But as mice had eaten away the bellows of the church organ, writer and composer had to be content with guitar accompaniment, when they sang the carol for the first time.

In the middle of the 19th century, a group of Tirolean singers brought the song to our country and it was left to Madam Schumann-Heink to immortalize the carol starting in 1898.

We can only wish each and everyone of you a Merry Christmas and let the miracle of Christmas be proclaimed from this birthday carol, "Christ, the Savior is born."

## New Faces in the Same Familiar Places

All of a sudden Tek Talk realized there were a lot of new people who hadn't been welcomed to Tektronix To acquaint everyone with them and the department in which they work we note:

### In August came:

Margaret Andrews	Coils
Minnie Berger	Unit Wiring
Gerald Crawford	Mech. Eng.
Ed Hopper	Final
Josephine Howrey	Capacitors
Effie Kenady	Accessories
Donald Lange	Shipping
Bill Love	Receiving
Walter Lowy	Final
Paul Magnusson	Test
Al Maxwell	Janitor
Kieth Morrill	Test
Norman Olson	Unit Wiring

During Septembe	r:
Carl Anderson	Engineering
Charles Brock	Unit Wiring
Millie Cantrall	UnitWiring
Mike Cavanaugh	Shop
Marian Crowell	Capacitors
Joe Drapcak	Test
George Fullmer	Unit Wiring
Pat Graham	Field Engineering
Ed Healy	Test
Wayne James	Final
Phyllis Jensen	Accounting
Bob Kaufman	Final
Marilyn Lehman	Unit Wiring
Rod Skelton	Mech. Eng.
Neil Skinner	Test
Paul Soderquist	Test, but got an
A	rmy call. 11/17/55
Ken Spooner	Test
Al Stewart	Shop—Plastics
Bill Stout	Unit Wiring
Deirdre Tomkin	Capacitors
Cal Watson	Shop
Wilma Webb	Capacitors
John West	Field Engineering
Bob Wellington	White Shop
Helen Young	Capacitors

### October brought us:

ack Belless	Te
Barbara Bidwell	Unit Wirir
Virginia Comstock	Assemb
Cecil Conrad	Te
Patricia Davis	Assemb
Wilson Franck	Sho
rvin Fried	Te

<u>.</u>	me ramma	1 luces
1	Loretta Hamel	Unit Wiring
)	George Hashizume	Test
	Coral Jenkins	Assembly
1	Deane Kidd Eng	ineer — returned
,	Service Supering Services	from Service.
	Kathryn Kroeger, 7	Taffy Fld. Eng.
	Lloyd Maurer	Test
	Gordon McGougan	Shop
	Lloyd Morris	Capacitors
5	Alta Persons	Assembly
	Virginia Sands	Field Eng.
3	Geraldine Schweitze	er Ceramics
1	John South	Shop
3	Sam Tabshy	Test
5	Dorthy Van Maren	Field Eng.
-	Elizabeth Wallace	Capacitors
20 201	Monttie Wallis	Ceramics
1	Barbara York	Capacitors
Α.		

And thru November:			
Jack Banister	Test		
Ella Beaver	Silk Screen		
Helen Berger	Assembly		
Eugene Buell	Stock		
Faye Burdick Fld. En	g. in Chicago		
Harold Busch	Test		
Francis Burton	Assembly		
Betty Carter	Assembly		
Orpha Daily	Assembly		
Marge Day Field	Engineering		
Cal De Pass	Test		
Warren Dixon	Test		
Catherine Egger	Assembly		
Egon Elssner	Test		
Dorothy Erdt	CRT		
Lucille Field	Assembly		
Irene Foxton	Field Eng.		
Martha Gibbs	CRT		
Joyce Hall	Ceramics		
Norma Harada	Field Eng.		
Alan Hayes	Assembly		
Ellen Holmes	Assembly		
Silvi Kalmann	Assembly		
Joan Karcher	Field Eng.		
Grace Malone	Capacitors		
Margaret Pearson	Capacitors		
Glenn Pelikan	Assembly		
Newton Phillips	Stock		
VyLette Putman	Prod. Req.		
George Riley	Panelcraft		

Ceramics

CRT

Donna Rohrer

James Zika

Eberhard Von Clemm

# THE BIN.

### Personnelities

Bob Duhrkoop and Phil Mallory have traded in their Stock coats for a pair of dykes and a soldering iron. Bob is in training department, Phil in assembly.

Charles Jay is in training now giving out with the fine points of wir-

Finals has five new hands in Joe Drapcak, Ed Hopper, Wayne James, Walt Lowy, and Bill Price. At the present rate of production, they're mighty welcome.

Frank Lucero can still be found near his cubby-hole, since his transfer to test department. I thought for a while we'd lose him in Gremlin Gulch.

Betty Glasnapp and Gloria Montag are now in quaility control. Both are well-qualified, what with their past experience in assembly.

Harda Kauk is Assembly's loss and test department's gain.

Ory Olson has transferred to crt production from capacitors. works nights so he can go to Portland State days.

An automobile accident on December 5th, involved three Tektro-nix people on S.W. Canyon Drive en route to work. Joe Drapcak, driver of the car, had as his passengers, Dierdre Tomkin and Lloyd



Morris A head-on collision resulted when an oncoming car slid accross the highway into Joe's car. Lloyd was hospitalized at Good Samaritan overnight with head injuries. Joe and Dierdre suffered from shock and minor bruises.

### Hitchhiking WAC

Darlene Adams, ex-mech. assem., now in WAC's, hitch-hiked home from Washington, D. C. on an army B25, just to be Maid of Honor at sister Kay's wedding. Swathed in a GI blanket and wearing a parachute, but in a comfortable seat, she made the trip in a little over two days. She stayed overnight in Alberquerque, N. M. and again Riverside, California in the WAF's quarters at March Air Force Base. They were wonderful! At San Francisco she hired a Cadillac, no less, complete with chauffeur, to hurry her to the SF airport to catch her plane for Portland. It cost her \$14.00, and all the rush, and then found the flight had been canceled for an hour. She says the West Coast's 'Champagne' flight is everything they say it is. First class accommodations and wonderful service. While here, she helped out in mech. assem. just for fun, and caught up on a lot of visiting with old friends. It was good to see her, too.

Tek-Tones appeared on the program, 'Dinner at Bart's', 10:30 p.m. Monday, November 28th on KPTV. Channel 27. Following an interview, they sang 'Dry Bones' and 'Coney Island Babe', two fast-paced numbers. This TV Debut was Bob Jackson's finale, because he's going on swing-shift in December. The quartet could sure use a baritone. Anyone for har-mo-ni-zing?

Margie Day was welcomed back Prod. Req. to Tek a few weeks ago. She is an

old friend of a lot of us, having worked here before going east with husband Jack. She operated the on the swing shift. Welcome home, Margie.

Awfully glad to hear Will Marsh is recuperating so fast. \*

Just to show how busy front office is these days, the girls didn't catch on until 9:30 on the morning of November 23rd, that Yvonne Hoffer was wearing her lovely engagement ring from Pat Moran. She's still teasing them about all the pointing, tearing paper, etc., she did to attract their attention. Congratulations to you and Pat, Yvonne, best wishes.

One of Tek's specialist's at opening offices is our charming visitor, Evelyn van der Veen. In 1952, Evelyn started at Bronxville and after indoctrination went to Syracuse. From there she went back to Bronxville and was in the division office for a year. Then to Cleveland for a six month period which took her to Chicago and the central division.

Now Evelyn is back at Tek's home office for orientation and doing some real spade work for the initial setting up of the secretarial portions of the new field offices. She is soon to leave for Menlo Park and the newest of the division offices.

Welcomed with Evelyn is her doctor husband who will continue working on his specialty in the Peninsula area.

Winding up vacations in ceramics department, we have 'Nimrod' Archer, formerly known as Rose, who bagged her deer this season.

Charlotte Peterson, husband Bud, and two sons, Jim and Jerry, went on a hunting vacation also. They didn't get a deer, but had a wonderful time tramping thru the woods and enjoying the wonderful Eastern Oregon weather.

## Seen Around Shop --

Les Purcell doing a construction engineering job on shipping door to keep canvas from blowing away during snowstorm. Credit Union's Shadow keeping 'eye' on Marv Lemley' who wants a new car. Virg Hall waiting for a wheel to fall of his new Chev. (90 day guarantee is up). Hank Jones figuring (and how) to be in his new home by Christmas. Rodger Carter's blue nose-from lying under his house thawing pipes during the 'November freeze'. Parttime merchants hawking wares, like: Tom Ruyle and his walnuts at \$.27.; Harvey Hansen and his 'spuds', \$3.50 per 100 lbs.

Via Tek Talk: Helen Reed - glad you're doing so nicely now you're home from the hospital.

Jean Anderson, Cables, is wearing her engagment ring from Clarence Lohse from Portland. Congratulations, both of you. December 12th is the wedding date.

Gloria Montag turned 'Santa's Helper' early and is aiding personnel. She's doing ably and it's very much appreciated.

Bon voyage and bon chance to Reggie Green who sailed December 9 from Seattle on a freighter to Yokahama. There she changes ships and continues to Hongkong, Singapore, Penang, Rangoon, and Calcutta. Reggie plans to spend two months in India and hopes to get

Leaving Bombay, our feminine Ulysses goes to Zanzibar and wanders up the East Coast of Africa on 'squawk box', as it was called then, a cargo boat that calls at many ports that are not on the regular run. Then comes a trip inland and a use for all of the film that Reggie has hoarded these many months - a photographer's safari into Tanganyika and a look at Mt. Kilimanjaro and eventually up to Cairo. From Cairo, she sails to Marseilles and from there Reggie has made no itinerary. We are all hoping for an occasional postcard.

And now, the question, what happens to Reggie's baby alligator? First of all, it has grown from 9 inches to 15 inches and Jean Jackman has promised to take over. Any angleworms will be gratefully re-

Speaking of bargain hunters and and it wasn't a Friday surprise but Les Stevens, Bob Leipzig and Jack Henderson are now chain experts. Les and Bob made a mad dash during our recent winter scene for 'something better than chains" -'something cheaper than chains" 'easy to apply" - "a money saving device" - but with the noon hour, a dash was made for town and they bought a clamp gadget practically guaranteed to get you out of anything.

In a trial run up Barnes Road, they lost one half way up and then had to hunt through the snow-this process continued as standard procedure every five minutes while swerving back and forth for traction. We understand that Les now has one and Bob has one and never the twain shall meet - in addition the white sidewalls wear red very well. Jack happily states that he went along just for the ride - but never again.

We notice in the roving press that George Roussos has been appointed advisor for the Greek Orthodox Church Choir Federation by Bishop Demetrios. George has served as chairman of this committee for the last two years. The choir federation is composed of the states of Oregon, Washington, Montana, Idaho and Alaska and British Columbia. (And on top of that George took off for a well deserved vacation [he said so] to the sunny climes of California and way points.)

Mary Lulow of capacitor departnent was given a farewell party and 'hanky' shower by all her friends at Tek. Hankies and/or scarves, to be



exact. She's been working at Tektronix since September, 1950, so it will be lots of fun just being home with her family. We'll miss her merry brown eyes and the lovely smile she had for everyone. Tek's farewell gift was a Shaeffer pen and pencil set.

Mary was the first girl in capacitors 21/2 years ago. There hasn't been a transfer or a termination until now, and Mary is the first one to leave. Capacitors has always enjoyed a warm, friendly companionship as evidenced by this unusual record.

With those friendly grins, spreading an early Christmas spirit around, are Jack Cassidy, Fred Hart, Francis Frost, Vic Fricke, Betty Pray, Gerry and Ginny Kraxberger, and permission to go up the Kashmir John Mulvey. It's good to see them again.

are vacuum-saturated with a special ter) at the other. When the junc-varnish and baked in T-controlled tion of the wires is heated, a tiny ovens. Silk-screen and printed-circuit operations both require close control of temperature, as do the degreasing vapor-oven, pickling vats, and paint ovens in our shop.

The cycle-room, where our scopes receive their final shake-down before calibrating, is equiped with thermal controls that turn on large blowers if the temperature gets too high. If the blowers fail, the current to the cycling racks shuts off auto-

The pop-dispenser, refrigeration, and water-supply for the coffee urns are perhaps more down-to-earth examples of T-control; and last, but far from least, what about the scopes themselves? All our later models are equipped with a thermal "cut-out", a gimmick about the size of a silver dollar which shuts off the electric power to the scope if it becomes overheated. In some, a "thermal relay" retards the application of high voltages to the tubes, after the power is turned on, to allow the tubes to "warm up" first.

What kind of device is necessary to obtain T-control? Well, there are several in use here. The most common, of course, is that old stand-by - the bimetallic strip, composed of two dissimilar metals bonded together. Heating such a strip causes one of the metals to expand more than the other, and the strip bends. This action can be calibrated and made to close or open switches at any pre-determined temperature. Another type is a closed system consisting of a capsule, connecting tube, and metal bellows, in which a liquid or vapor expands or changes pressure with rising temperature, causing the bellows to expand and operate a switch.

Another type suitable for operation beyond the useful range of bimetal or capsule, is the thermocouple-galvanometer-relay. Two wires of dissimilar metals, such as iron and constantin, or platinum and platinum-rhodium are welded to-gether at one end, and connected to

## **Human Relations** Institute Held

Starting last year, the National Association of Foremen increased its services to the member clubs. Among the new and advanced services is the 'Human Relations Institute', which has been put on by NAF, with the cooperation of local clubs, in many areas of the country. It has been very well received and appreciated. It is the result of the work that has been done by the NAF staff. A program of this kind was presented for the first time in Portland, in cooperation with the Greater Portland Management Club, on December 9 and 10, with afternoon sessions at the Masonic Temple, and evening sessions at the Heathman Hotel's Georgian Room. A large group from Tektronix at-

Mr. Ray Monsalvatge, Manager of Education, National Association of Foremen, led a conference—'A Code result of all these combined efforts of Ethics for Management', on Friday, December 9th. He acted as cords. Soon all departments, who day, December 9th. He acted as Moderator for a Panel Discussion Problems in Labor Relations and Human Relations' on Saturday afternoon, December 10th. Mr. Monsalvatge has had wide industrial exerience in the United States, Puerto Rico and Canada, and has held numerous positions with NAF. He has traveled and spoken extensively in connection with his NAF activities, and has written a number of articles and booklets on club operation and other subjects. He was assisted in the Panel Discussion by Dr. A. K. Brintnall, Boeing Airplane Co., Mr. Edward Cooley, of Precision Cast Parts Co., and Mr. William Welch, Timber Structures, Inc. The panel members were men who have had a great deal of experience under diverse conditions in the industrial relation field.

Mr. L. L. Cunningham, president, Another advantage is Business Institute of Milwaukie, safety from fire and heat.

The transformers for our scopes a sensitive meter (the galvanomere vacuum-saturated with a special ter) at the other. When the juncelectric voltage is set up, causing the meter to deflect. The end of the pointer carries an electric contact, which operates the relay, which controls the heating element - whew! and turns off the heat. This type works well to above 2,000°F.

Oh, we have a fancier one than The electronic bridge. This that! kind of bridge has nothing to do with Brooklyn or the Golden Gate; it is simply four resistors connected in the form of a square and "balanced", so that a current passed from one corner to the corner diametrically opposite, will produce no voltage between the other two corners. Now, one of these resistors is made of a special substance which will change resistance in a known manner when heated or cooled, thus throwing the "bridge" out of balance, and producing a voltage between the last-two corners. An electronic sensing device connected to these points does the rest. By making one of the other resistors variable, the device may be set to shift balance at any desired temperature within the useful range of the instrument.

Descending from the complex to the simple, we find the pyrometric cones we mentioned in discussing the ceramics section. These are carefully calibrated in manufacture, and can be obtained to indicate quite a range of temperatures commonly used in kiln firing; but they are in no sense an automatic control device. They must be watched carefully as the desired heat condition

is approached **slowly**.

We can see now that the T-control problems of Tektronix run a very wide range of temperature, application, and method; and practically all of them are vitally important to our continued production of the top-quality instruments which have made Tek foremost in this

gave the keynote address, speaking on "New Horizons for Management". Dr. Robert R. Aurner, vice president, Management Consulant Division, Scott, Inc., addressed the dinner session on Saturday, on 'Management Discovers New Treasures in Better Communications".

## Accounting Aid

Have you noticed those mysterious whirring sounds emanating from the Accounting Department? Well, If you've looked in the door, then you know Tektronix is now the proud owner of a Bell and Howell Micro-film unit.

One of the many problems a company encounters, as it becomes larger, is the storage of more and more records. After casting an inquisitive eye at the growing bulge of records in the quonset hut, the Advisory Group decided perhaps this was also one of our problems. A microfilming program was discussed and a committee appointed to look into wish to enter this program, will have their non-current records on

One of the many advantages of microfilm concerns storage space. Since a frame of film is much smaller than the original document, tremendous savings in storage space are available. One half-sized file drawer of microfilm rolls will hold the equivalent of 200 file drawers of original documents. Not only does this release valuable storage space for production use, but considerably reduces the need for purchasing new filing and storage cab-

Microfilm adds to efficiency too. Once records are filed on film, they cannot get out of order, and the problem of mis-filing is virtually eliminated.

Another advantage is increased

## Sharp Continues on Torrid Temperatures Junior Achievement, Inc.'s "J. A. Print Co." Visits Tek

Tektronix is participating in the project of Junior Achievement, Inc., a national organization whose purpose is the practical side of business training of high-school students. J. A. Print Company, packaging and distributing 'Scenic Stationery', has been organized. Ken Walling, Al Foleen, and Emil Evans are acting as Business, Production, and Sales advisors, respectively.

The U.S. is divided into 77 J.A. districts, Portland being the 17th largest with 35 Junior Achievement companys to its credit. Each J. A. company is sponsored by an established business firm and assisted by three persons from that firm who act as advisors. Private citizens help finance this project by purchasing shares of stock at 50 cents per share. Each student is required to own one share of stock entitling him to be a member of the Board of Directors.

Business is carried on thru production meetings held once a week. During these meetings, stationery is gathered and boxed, sales problems and tactics discussed, progress

The company has a President, of the company scanned as to profit Vice-President, Secretary, Treasur-



or loss, operating methods and expenses evaluated. Actual business conditions emulating those of business firms the city over provide the same problems and their solutions, facts and their acceptance, questions and decisions that the students will face in real life. These are not 'namby-pamby" student companies. They are in business to make a profit in experience, and money, if possible. Sales forces are busy during the week using all types of ingenuity, tact, and diplomacy to further the sales of their products.

er, Production and Sales Managers. The Board of Directors holds meetings in the formal manner of the Board of a senior corporation. The tenure of the company runs concur-rently with the school year, being liquidated at the end of the spring term. Profits or losses are evaluated at this time, with dividends paid to each share-holder from any profits. Everyone learns something profitable from these projects, win or lose, sometimes, more from the loss than from a gain.

It has been found the mortality rate of these student operated companies is no higher than the national average of adult businesses. Handling of actual business operations by the students gives them a firm foundation augmenting their school training. Development of their natural aptitudes for selling, designing of packaging, bookkeeping, etc., helps the students decide on future goals. Their weak points can be strengthened, their future made more successful thru their experiences now. American Business of the future will be more secure, better managed, because of 'J. A. INC.

Just a word here, to quote all 3 advisors: It's been a really pleasant experience to act as advisors for these young people. Both sides profit from solving problems, experimenting with new and fresh ideas. Anyone interested in young people knows you learn more and get great satisfaction for yourself by helping youth groups such as JA reach their goals, and there's always room for interested parties who would like to be an advisor.

Les Stevens and Bob Leipzig-

Tek-Tones Bob Jackson switched

sawdust tires, so they won't have to

bother with chains ever again.

Santa's List

## Ceramics Dept Adds Extrusion Equipment



The ceramics department is expanding these days in other ways besides adding new girls. Our long hoped for extrusion machine finally arrived and is now installed and producing in the mold room in the quonset hut. Due to Jack Tate's ingenuity and the department's persistence the machine is producing at a good rate and improving daily, now that the usual wrinkles involving new machinery are ironed out.

Its main operation is to extrude (as toothpaste from a tube) damp

clay in strips ready to saw to proper lengths. The machine is expected to increase production by several hundred percent, thus paying for itself in a matter of a few months of service. Besides increasing production, it practically eliminates slip casting and mold making. 60 to 80% of ceramic strip production is now by extrusion. Other operations that take much time and hard work now, may be shortened or eliminated later. Needless to say, the girls in ceramics welcomed it with open

### back to days — or a new baritone Lloyd Davidson - four hands, three sets of ears, and televised telephones so he can see the merchandis he's talking about . (Lloyd is taking Bob Duhrkoop's place.)

Dick Ropiequet - a book of floor plans for additional home expansion.

John Kobbe — a double-size parking space to accommodate his new

Dick Rhiger - a pocket-size fire extinguisher for cigarettes, pipes, and see-gars.

Bill Lee - a custom-made arm sling as an aid in holding up his right arm when loaded down with the jumbo-size beer mug he uses as a coffee cup.

Gisle Borlaug-To get on a bowling team on tuesday nights to take up some of his leisure time.

Don Pratt - A pair of ear plugs so when Bill Bates drops a wire spool it will not wake him up before coffee time.

### SUCCESS is the result of doing something in an unusual manner by someone who has character, courdesire to be of service to his fellow man.

-O. V. Baron

which explains the kissing that goes on under it.

Hanging up the stocking came by way of France, and Santa down the chimney to fill it from the Norsemen. Holly goes back to the Roman Saturnalia and our Christmas cake had its beginning in Rome. To England we owe our plum pudding, mince pie and the Christmas card which she introduced in 1846. The Red Cross Christmas stamp came Germany. Christmas gifts stem from Denmark and Deleware gave from a pagan custom identified with America its first in 1907 and so we the New Year, and hanging them on have our TB seals annualy. The the tree, from the tree worship of U.S. added the sleigh bells and the the Druids, who dedicated the reindeer in 1822 and built Santa a

## Mod. Coordination

(Continued from page One.)

### Manual Correction

of the mod is to notify the instruc-tion manual department that the modification about which they had been forewarned is now in effect. They will then take steps to correct the parts lists and schematics in the instruction manual from the effective serial number foreward.

All that remains to be done to complete the modification cycle is for the mod department to write a complete detailed description of the modification and to provide development engineering, field engineering (sales), production test, requirements, and the repair department with a formal copy.

The next time a modification comes your way, think of it for what it really is-a means of insuring that your product and mine will maintain the enviable position that Tekmade products have earned and rightfully hold in the industry.

## Turkish Stamp Dedicated

Santa Claus, will be commemorated by Turkey in a special issue postage stamp released on December 10, portraying the Church of St. The final step in the processing Nicholas at Demre, home town of the original patron saint of Yuletide age, intelligence, common sense, who was born, lived, and served as skill, a keen observation and a real Bishop there more than 16 centuries

> Because many of his charitable gifts were made at Christmas time, St. Nicholas became identified with holiday giving. His reputation soon spread throughout the world as the Patron saint of sailors, maidens, and, especially, of children.

### Many Customs from Santa

While the Christmas Tree antedates Christmas itself, the first on record did not appear until 1605, in mistletoe to the Goddess of Love, home in 1866 at the North Pole.

What is this new supervisor's group I hear about? What is it for, and who can be on it? I understand there are a couple of other groups such as the Advisory group and the Management Committee. What are they, and where do they fit into the operation of the company?

Elaine James

Dear Elaine,

A series of articles is in preparation right now which discusses the purpose and operation of all of the groups here at Tektronix. Briefly, all of the groups are the result of an attempt to develop closer cooperation and better understanding of the problems in the different parts of the plant here at Tektronix. These groups also serve to broaden the participation in the consideration of these operational problems. The Editor

Dear Editor:

My property taxes jumped again this year. One of my friends told me these taxes will keep going up. Will they always go up, or can I dream they may someday come down?

If taxes are so high on 'my little grass shack', what about taxes on those big concrete, steel and glass air-conditioned buildings of Tektronix? Taxes on those pretty buildings must be - WOW?

How does the property tax system work anyhow, and is it any worse or better in Wash. County than elsewhere?

> Sincerely, (Woe is me) Taxpayer W. I. M. T.

Dear Mr. W. I. M. Taxpayer,

Right now I have a man working on your problem, but the question in my mind is whether or not to give space in Tek Talk for aseries of articles, which it takes, to answer your questions. What do you think Sincerely,

(Your Wondering) Ed.

## Questions & Answers Plastics Cured In Drying Room

To facilitate drying and storage of plastic materials, a curing room is being installed in the plastics department. Primary purpose is postcuring of molded parts and keeping raw molding materials moisture-free. Material such as Zytel nylonresin and tenite butyrate absorb moisture readily if not stored under proper conditions. The room will be operated continuously at 150°F. Materials exposed to the atmosphere at room temp of 70°F become contaminated to above 2% moisture content. Material with 2% moisture content transmits heat much more readily, causing over-heating of molding materials resulting in weak and brittle parts. At 150°F the atmosphere will hold approximately ten times more water keeping it out of the materials and allowing for trouble-free molding and continued good parts.

Two processes of molding are used in the plastics department: injection, where material is transferred from a heated chamber thru a nozzle into a cavity; and compression molding, where powder is poured into a cavity and the other half of the die is pressed close over t. In compression molding, the application of heat and pressure serve to mold the powder into a homogenous mass, and presto — a knob, probe head, etc. There is a third method combining injection and the compression molding, but at present it is not being used at Tektronix.

Examples of injection molding are the 500 series knobs and coil forms, and the black or red graticule rings. Compression molding is used on the 510 probe body and the 310 and 315 knobs. There are 43 injection molded parts and 21 compression molded parts made by plastics department, at the present time.

## Trust Builds With Each Year

Last month's Tek Talk explained how your 'right' to the amount of profit share in your retirement trust account increased with each additional year of work you completed. You forfeit all your account if you terminate before completing two years, but all your account is yours when you complete six years. By the end of 1955, fifty-one employees will have completed six years with Tektronix.

If you terminate before completing six years, or before your account contains \$2,000, you will receive a cash settlement of the amount of your account that has 'vested' (is unforfeitably yours) in you. 2,000 or less in your account would provide such small retirement income payments that it is not to your advantage that the trust hold it for you. Usually it will be to your advantage to wait until after the close of the calendar year to receive your settlement. If you desire, you can have it soon after you terminate, with a sacrifice of the additions that would be made for that year.

If you terminate employment after completing six years, and there is more than \$2,000 in your account, it will be held to provide retirement income to you, regardless of where you then work. This is very valuable to you, for in no other way can you have such an investment opportunity without tax erosion.

The amount in your account will change only once a year, as of the end of the year. At that time your share of the profit share for the year, and of the earnings from investment are added to your account. Therefore, if you insist on a settlement before the end of the year, you must take it on the basis of the amount in your account at the beginning of that year. In either case, you only get the percent of the account that has vested in you on the basis of the number of months you were paid for working.

Next month's Tek Talk article will explain the investment policy adopted by your committee. Your account statement, to be received late in February, will list the investments in the Trust Fund.

rived on November 10th to help dad

chael picked the stormiest Friday he could find to announce his arrival. The trip to the hsospital started with troubles like skids, putting on chains, and snow everywhere. But he's doing fine now, only bothering

## New Platen Press Nuptials Noted

To Save or Borrow For A Brighter

Tomorrow

see Your Credity

A new attraction to the shop equipment is the addition of a new 125 ton K. R. Wilson platen-type hydraulic press. This press is now installed and operating in the shop. There are a great many parts now being contemplated for this platentype press.

Presently the press is turning out all the front panels, sub-panels and overlays for the 310 instrument, plus the sweep and power chassis for the 530-540 Series instruments. It is also being used for the blanking of the CRT and plug-in units for 530-540 Series scopes.

The designed purpose of this type press is its ability to perform complete drawing operations such as the drawn corners on the 310 instrument. This characteristic of drawing rounded corners is being designed in all new instruments.

The versatility of this type press, for its drawing, blanking, forming, and piercing operations, make it an ideal piece of equipment for Tek-

John West, Field Engineering, got a long-distance phone call from his sister anouncing the arrival of twin nephews. Hear them buttons popping? Congratulations, Uncle John!

November 22nd was the day the doctor picked for Irene Garvey's new addition to arrive. Irene gra-ciously complied, and Joseph ar-rived at 4:40 P. M. You've a lovely family, Irene.

October 19th, Evelyn Dunham, secretary of the Chicago office, became the bride of Teunis van der Veen. Doctor van der Veen is from the Netherlands. He will complete his residency in California. They spent part of their honeymoon driving across country to Portland.

Burton Jones, shipping, was married to Doris Elaine Updike in an evening ceremony on November 4th at the Woodlawn Methodist Church in Portland.

Kay Adams, mech. assem., became Mrs. Roy Newman on November 12th. It was a lovely wedding with color-scheme of pink and white carried out in the dresses and flowers. Her sister Darlene acted as Maid of Honor, coming home from Washington, D. C. to take part.

Frances Traver, unit wiring, became Mrs. Ernest M. Gunter on November 19th. They were married in a noon-time ceremony in Immanual Temple parsonage by Reverend John Kennington.

Bob Carrol, finals, was married to Colleene Martin in Stevenson, Wn., on November 26th.

Eddie Richmond's (test) son, Merlyn, who is a pre-dental student at Portland State, will be married December 17th. The bride is Barbara Yates, who works in the Portland State Registar's office.

## Credit Union Changes Accounting System January 1, 1956 will find your

Credit Union using a Burroughs Sensimatic-accounting machine. One of the reasons for changing the accounting procedure is to improve the appearance of the records while speeding up the accounting operation. The new system will replace the member's passbook with a statement similar to the type used by banks. The statements then will be mailed to the member's home every three months. Those members desiring to keep a passbook will be asked to bring them to the office periodically to have them brought

In this way, more time will be available to carry on other important office operations and still provide the good service so necessary to make a good credit union.

## Tiny Tek's

Test department is hearing lots about baby care from three proud dads these days. Mike Park's son Larry Bernard arrived on October 30th, just 10 days after Frank Kopra's son David Anthony. Glenn Park can hold his own in the conversa-

keep in the know. Gloria Hanna's son Rodney Mi-

tions now, too. Jefferey Glenn ar- mom and dad when he's hungry.

## Down The Alleys With Tektronix Keglers --- Every Night of the Week

Confusion reigns, this is the second third of the first half of the 1955-1956 bowling season, so states Harlow Loucks, President of the Tektronix Bowling League. In writing about the Tek bowling league in Tek Talk, we want to be sure to include people from Tek who are bowling on other teams. Someone is bowling every night of the week Hot Shots on one team or another. Competition is very strong. In fact, it's bowling balls at 50 paces.

Here's a list of the existing teams which contain at least one or more Tek members. A little later on we hope to publish the way that these teams stand in their respective

leagues. One complete team and some other teams will attend the Oregon State Bowling Tournament to be held at East-Side Bowl January 4 thru February 26. This tourney will consist of a team event, a doubles event, and a singles event. Any ABC sanctioned bowler having bowled 21 games or more before September 1955 is eligible to bowl in the tourney. A series of 3 games will be bowled in each event to determine

Our sincere apologies to anyone we may have missed in this article and we hope to get you next time. Tuesday: Livingston Plumbing - City of Roses League Showboat

Wednesday: Sleepers Hollywood Keglers

Hollywood Keglers

Hollywood Alleys

Friday: Donna Kay

Vallevette League

And now the Guys:

Monday:

McGeorge for Appliances

Canyon Road League

Canyon Road League

Catholic Men's League

Hollywood Keglers

Hillsboro Moose Lodge St. Christopher

Tuesday: Tektronix

Men's Commercial League

Don Ellis Don Calnon Dick Ropiequet Roger Carter Burt Eberly Chuck Gasser Wednesday:

Time Finance Canyon Bowl Team Thursday:

Lorraine McNiel Tektronix League

Terry's Furniture

Rose Duane Clara Knox

Kay Bartmess

Ruby Carter

Harriet Anderson

June Wooldridge

Evelyn Johnson

Gladys Koch

Chuck Gasser Gisle Borlaug

Ernie Plapp

Cliff Breazile

Dick Shmidt

Don Calnon

Ruth Lukens

Kay Bartmess

Dee Tmkin

Evelyn Johnson

Jean Jackman Team No. 3

Rose City Bowl Team No. 1 Team No. 2 Barbara Ekstrom Audrey Duyck Ken Lukens Lee Wagner Helen Schuening Orville Riggs Ida Smith Marge Thorn Len Nelson

Burt Eberly

Gisle Borlaug

Slim Sorenson

Gisle Borlaug

Helen Riley

Ed Kiepke

Ash Ashenbrenner

Erwin Ashenbrenner

Team No. 4 Pius Scheer Harlow Loucks Warren Collier Helen Sherrod Neil Skinner Wilma Stapleton Earle Pahlka Don Sherrod

Substitutes for Tek Teams:

900 Classic League

900 Classic League

Miller Duris

Carl Helmer

Armon McDowell

West Slope Business Men's League

Betty Spohn Alice White Hallie Todd Earl Wantland Charlene Goodman

John Durecka John West Chet Murphy C. L. Murphy

Friday: Blue Moon Tavern

Tualatin Valley League Bill Barnes Don Pratt

Gisle Borlaug Doug Prouty Ken Lukens