

# TEK TIMES

Number Thirty

## The Second Tour-de-Tek



### The Second Tour-de-Tek

Ready for the start of Tek UK's sponsored cycle ride from Hoddesdon in aid of the International Year of the Disabled. The riders were sent on their way by Guan Tan (General Manager -

Manufacturing) and Mr. Papworth, Chairman of Hertfordshire Association for the Disabled. See the full story and more pictures on pages 4 and 5.



### AREA REPRESENTATIVE CONFERENCE

The next area representative conference will be held on 5th November 1981 at 10.30 a.m. in Harpenden.

Management representatives attending will be - Derek Philpott, Bob Drennan and Maurice Parker.

### Cover Girl

Tracy Collins, sales secretary IDD, Maidenhead. Tracy joined Tek in

August this year. Her main interest is sewing and enjoys most sports.

# Letters from the Palace

Although not the field engineer covering that part of London containing Buckingham Palace, I have been able to secure covers bearing stamps issued for the weddings of Princess Ann and Prince Charles and postmarked at that

august building.

Xerox copies are available at no charge but my daughter insists that the originals are family heirlooms and are to be kept at all costs, although I no longer collect British stamps.

*John Seaman*



# Getting into Line

With a view to giving even better service to the production area at Hoddesdon, the boys in the stores decided it would be a good idea to spend a few hours actually working on the production line, to see the job "from the other side", so to speak.

So Mark Baxendale, Tony Genga, Mark Horseman, Neville Gresty,

Steve Rosewell and John Irish did just that. Our photos show the lads inserting components into boards on the Telequipment D1000 production line.

*Photos and story from Alan Bull Hoddesdon*



# The Fence

It's got two sides.

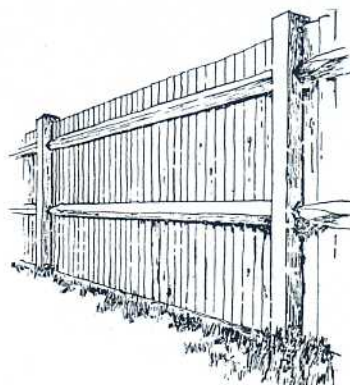
Whichever side you're on, the grass looks greener on the other.

In industry, it's a barrier to communication and understanding - both ways.

You can maintain it, sit on it or build it up. From either side.

-we're all better off without it.

*Contributed by Jim Rockall*



# Who was Daguerre?

There can't be many readers of Tek Times whose homes do not harbour a camera of some sort. It may be a simple snapshot type, an instant picture variety, or one of the vastly complicated 'knobs and dials' machines that the faithful will enthuse about for hours.

It is hard to imagine what everyday life would be like without photographs yet photography is a comparatively recent phenomenon.

One hundred years ago it was essential to be a chemist and physicist with independent means, and have a flair for experiments, in order to dabble in the then new medium of picture recording.

Photography was born in the 1830s when Louis Daguerre developed a process for recording light images upon a copper plate coated with silver. A working system was demonstrated in 1837 but Daguerre lacked the financial backing to promote his process and it was two years before the French government took up his discovery.

Around the same time Henry Fox Talbot had been experimenting with writing paper dipped in silver chloride. He succeeded in producing images of the windows in Lacock Abbey (Wiltshire), but did little to pursue his invention until Daguerre's work gained publicity. By 1841 Fox Talbot had patented his Calotype process while the Daguerrotype method was producing portraits in the major European capitals.

Pity the sitters of the 1840s. One early Voigtlander camera called for an exposure of 3½ minutes in overcast skies, 1½ to 2 minutes in the shade and 40 to 45 seconds in direct sunlight. "Smile Please" - for 3½ minutes without moving!!

During the 1850s a wet plate negative process was developed, reducing exposure times to 30 seconds or so. Still less than suitable for action photography, but more manageable, and a good basis for further development.

Wet plates gave way to Dry plates in 1878 and from here the step to "film" was a short one. In 1888 the trademark Kodak was born with the introduction of the first box camera.

Folding cameras and twin lens versions became popular amongst the enthusiasts. Magnesium powder flashlights shortened exposures and electric light pervaded the studios. Hand held cameras became a reality.

But still we had only monochrome (black and white or, more often, brown and white).

It was not until 1934 that Dufaycolor made the change from monochrome a practical proposition. Kodachrome followed just one year later and became the forerunner of what is still generally regarded as the best colour film available to amateurs.

Apart from the Polaroid development by Dr. Edwin Land, the last 45 years have produced few radical changes to the basic concept. Improvements in quality and performance have been outstanding but by far the greatest impact that has brought photography to its present day proportions is the development of the amateur camera market.

Technology has stepped in here, allowing miniaturisation and convenience. The picture taking public can be as technical or as simplistic as it chooses. It can be sophisticated and automated and above all, it claims to be foolproof. A degree of artistic licence is permitted the ad-men here, though it cannot be denied that a very high proportion of all photographs taken today are considered pleasing and acceptable by the taker.

A vast industry has grown up around the amateur and professional photographic user, catering for the needs of industry through to those who take snapshots simply to remember their treasured moments.

Reflect for a moment on the developments that have come from those early days of the photograph - Cinema, T.V., Weather satellites, Colour Supplements - the list seems endless.

Louis Daguerre, his associates and rivals started a real revolution.

Where will it go next?

*Derek Smith*

## Tektronix Europe B.V.

Changes in Tektronix organisation in Europe were announced during August. All European management functions have now been consolidated into a single organisation known as Tektronix Europe B.V., and located at Amstelveen on the outskirts of Amsterdam, the Netherlands. The

new company is managed by Frank Doyle, General Manager, Europe.

Employees who previously worked for Tektronix International Inc; (the European Marketing Centre) and for Datatek N.V. (Board Exchange Centre and CIS-I Group) have become part of the new company.

## JOHN LEVERTON

It is our very sad duty to record the sudden death of John Leverton on Sunday, 27 September, at his home in Garforth, Yorkshire. John had been with Telequipment and Tektronix for more than 21 years as a field sales engineer in the Northern region. The funeral was attended by a large number of his colleagues, from Tektronix - Beryl Greenwood, Ray Ganderton, Alan Hutley, Alan Julier, Dave Norris, Roy Appleby, David Whitaker, Ian Jones, Dave Pettit, Paul Smith, Barry Towner, Geof

Thomas, Tom Williamson and Reg Watson; from Telequipment (Hoddesdon) - Arthur Hale and Cliff Brazil; and ex-Telequipment friends Jim Copps, Dick Marrison and Brian Hollingsworth. Also present was Syd Petch, organiser of the Leeds University Electronics Exhibition in which John regularly participated on behalf of Tektronix. One of his closest friends was Dave Norris who has sent us the following tribute to a man we are all going to miss:



## Obituary to John Leverton

John is gone - or is he?

On my way to his funeral with my old dog Pip, via an older familiar road across the Pennines, I passed the same hawthorn tree beneath which John and I sat all those years ago on a perfect June day, checking his customer record cards on my first day with Telequipment. Further on I passed the Black Bull in Broughton where in the days before field offices we swapped instruments. More memories came back as I journeyed through Ilkley and Otley to The Gaping Goose (John's pub). Many of the friends he had made throughout his life had gathered there for a trip down memory lane.

A further mark of John's esteem was the packed-to-capacity church with friends and relations from all over the world. In the hearts of all these people I am sure there will also be many wonderful memories. John seems to feature so strongly in memory, and memories never die. Neither will John.

That's the sort of person John was.

When he adopted you, you stayed adopted. He left a lasting impression on you. John was the sort of person you were always glad to see. The longest, darkest, stormiest, winter journey was brightened when you remembered John would be meeting you at the other end. He idolised his family. He was a truly great friend with a completely forgiving nature, and was tops in his job. John gave us all a little something quite intangible which we will always carry with us. He enriched the lives of all his friends. That is why people like John don't die, they just become lax at filling in Call Summaries and Prospect Lists.

Good Night and God Bless old son. Next time we meet it will be your turn to get your hand down because you should have the job organised by then and mine will be "just a pint and a bag of crisps for Pip."

*Dave Norris*

P.S. I would have liked to have listed your faults but I didn't have enough paper.

# Tour-de-Tek



Ken Burton, Stan Ripsher and Dave Miller at Maidenhead.

Twenty seven Tek cyclists recently took part in the second annual Circuit of Tektronix sponsored bike ride which was held this year in aid of the International Year of the Disabled.

No fewer than 17 riders managed to complete the full course of 106 miles and an aggregate total of 2,289 miles were covered on the day (September 4th). This was an improvement of 555 miles on last year's effort and Teresa Cooper and Ann Collins, both of Hoddesdon site, became the first girls to finish this gruelling event.

The start from Hoddesdon was delayed by misty conditions and when the group finally set off on their long ride, visibility was still down to about 30 yards. This did nothing to dampen enthusiasm however and soon the riders were enjoying the pleasure of wheeling through the quiet lanes around Wheathampstead. The only casualties on this stage were Chris Coghill of Hoddesdon who went off course (missing the marker arrows in the fog!) and the Maidenhead tandem which proved rather susceptible to the odd(!) breakdown or two.

David Braike joined the bunch at Harpenden and soon showed himself to be something of a pace-setter, leading the riders through Redbourne and Hemel Hempstead.

The video unit which was out to film the day's proceedings for posterity, found plenty of suitable footage on this stage as the tough Chiltern climbs followed one after the other. Several stops were made to re-group and despite Dave Miller's puncture and Mark Dickinson's cut finger, quite a large contingent struggled gamefully through to the flatter pastures, south of Beaconsfield.

Most of those taking part were now content to take it easy and enjoy the beautiful scenery on the road alongside the river Thames, but Peter Bavage and Tony Collins were still in an energetic mood and these two led the field into Maidenhead.

An enormous buffet lunch was laid on by Dave Fynn and Co. at the Grenfell Arms and it must have been a shock for the landlord when the place was suddenly INVADED by an army of hungry and thirsty riders and an (equally hungry and thirsty) team of support personnel and cameramen!

After an hour or so to recover from the food and drink as much as from the cycling, a start was made in the direction of Southgate. Dave Miller and Ken Burton led for long sections of the stage - this fact was attributed by some wags to the presence of the

video camera in one of the preceding cars! A tail wind along the A4 and A410 had resulted in a very fast pace but after Apex corner the steep climbs of Totteridge Lane and Osidge Lane took their toll and the remaining members of the group straggled into Southgate in ones and twos to be greeted by Ed Morrison and most of the staff on duty at that time.

The short break here was soon over and the race was on to get back to Hoddesdon before the expected finishing time of 4.55 p.m. After a windswept last dash of 14 miles along the A10, eight riders succeeded in beating this deadline and were rewarded by the resounding cheers of the staff who had just finished work for the day.

Nine more "heroes of the road" were still to arrive, the last of these completed the course at 7.15 p.m. - just in time for the start of the Barbecue and Disco which, as before, rounded off a most enjoyable day for all concerned.

Thanks to generous sponsorship, a figure of £700 has been raised by the employees of the four Tek sites involved. The company itself has offered to top up this amount to a total of £1,000 which will be divided

## Tour-de-Tek 2

This years Tour-de-Tek was admirably supported by a team of racers from Maidenhead, who, complete with spare pacemaker batteries set off with the pack from Hoddesdon.

The ride began at a startling pace with much jostling for position. Alan Kendall was going well but could not seem to shake off Gary Kent and after a tough first leg arrived at Harpenden pipping Gary to the post by a short head. (Brian Gray would appreciate the return of the tandem so he can complete this weeks deliveries). Peter Bavage soon showed his superiority and it was clear that a good rub over with a bag of canteen chips had reduced his wind resistance considerably. (Peter still feels that much of his success was due to his self-designed aerodynamic toe clips). Laurie Smith put up a terrific performance and found that the loss of his beard (contrary to popular belief) had in fact added to his strength. He is unfortunately having problems re-fitting the carrier before returning the bike to the post office.

Paul Morgan, had analysed the route before hand and had cleverly



Ken Livermore at speed.

between the Hertfordshire Association for the Disabled and the Windsor and Maidenhead District Sports Association for the Disabled as soon as it can be collected and a suitable presentation date arranged.

As for next year, the "Tour de Tek" as it has been dubbed seems set to go on for yet another repeat performance - there are, however, one or two ambitious souls who are now talking in terms of LAND'S END to JOHN O'GROATS!!

Ken Livermore  
Hoddesdon



Eric Bidwell, who finished the course first time out.



Lining up for Stage 3 at Maidenhead.

written a computer programme whereby he could avoid cats eyes whilst remaining on the white line, unfortunately, due to roadworks at Little Chalfont his programme was corrupted and he found himself on Keith Retallock's front lawn.

Barry Towner had borrowed a specially lightened machine for the event which compensated for the 2½ gallons of best bitter consumed during the week. He put on a brave fight but was last seen half way up Amersham Hill being violently ill due to the consumption of 1½ dozen Mars bars.

The girls put in a marvellous performance, Debbie Kipling was going well and no doubt would have made the tour had she not decided to lay down in the road with the bike on top of her. Fortunately she was found by "Neville Bywaters" who was taking a break from filming "General Hospital". Recovery was said to be very speedy.

For much of the first two stages Jeff Jones and Gaye Ashe had been within sight of each other. Gaye was gaining on Jeff and would have made it to Maidenhead before him had she not decided to stop at Little Chalfont for a quick wash and blow dry. Jeff on the other hand had had his done the day before so decided to take advantage of the situation and push-on. They both found the M1 a difficult section to complete and had great difficulty in shaking off a red striped Rover that had been following them.

Joe Galsworthy had youth on his side, and, with the addition of a fan motor extracted from a customers

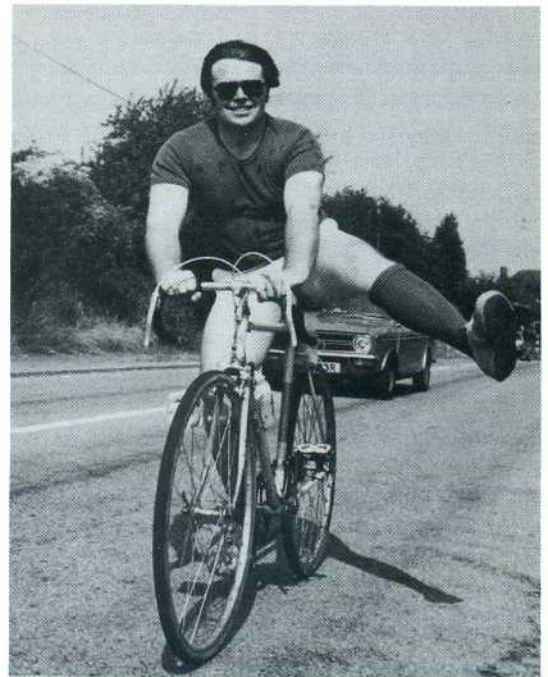


David Braik and Dave Fynn heading for Maidenhead on Stage 2.

a tremendous effort considering he also included two circuits of Trafalgar Square.

Of the eleven starters from Maidenhead, Dave, Laurie, Peter and Joe finished the course, the remainder all made it to Maidenhead, making a total of 809 miles contributed from Maidenhead personnel, a well done everybody and we all look forward to next years event.

Barry Towner



Ken Burton of Hoddesdon.

## Maidenhead Participants in Sponsored Cycle Ride

LAURIE (Nicked It From The Postman) SMITH  
 PETER (Ex-Tour De France) BAVAGE  
 ALAN (I'm With You Gary) KENDALL  
 GARY (I'm With You Alan) KENT  
 PAUL (Almost Reach The Pedals) MORGAN

BARRY (Nice Bike, Shame About The Legs) TOWNER  
 JEFF (Quicker By Fork Lift) JONES  
 DAVE (I'll Get There If It Kills Me) FYNN  
 JOE (Fix 'Em As I Go) GALSWORTHY  
 DEBBIE (Stay On The Bike) KIPLING  
 GAYE (Wash and Set) ASHE



Peter Holness in classic pose!

oscilloscope, had great problems stopping his legs going round. One bystander (who had just emerged from the "Mucky Duck" at closing time) reported that Joe was in fact cycling 6 inches above the ground but this has not been confirmed.

Dave Fynn's performance was worthy of special note. Against his doctor's advice and in spite of begging letters from his Insurance Company, he entered. He had been advised by local cycling experts to change his tyres from solid to pneumatic, but, enjoying a challenge, decided to stay with the solid tyres (although he did remove the stabilisers). Dave finished the course,



Teresa Cooper - first girl rider ever to complete the full course.

## Tektronix Bike Ride

### Final Mileages

#### Hoddesdon

Chris Astall	106
Sharon Barnes	47
Cliff Brazil	106
Ken Burton	106
Eric Bidwell	106
Ann Collins	106
Tony Collins	106
Christine Coghill	30
Teresa Cooper	106
Mark Dickinson	106
Peter Holness	106
Ken Livermore	106
Dave Miller	106
Mark Rider	106
Stan Ripsher	106

#### Harpenden

David Braik	70
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#### Maidenhead

Gaye Ashe	50
Peter Bavage	106
Dave Fynn	106
Joe Galsworthy	106
Alan Kendal	30
Gary Kent	50
Debbie Kipling	50
Geoff Jones	50
Paul Morgan	55
Laurie Smith	106
Barry Towner	55

GRAND TOTAL 2,289 miles

Photographs continued page 8.

## Sports & Social Club

### Rounders Return Match-Harpenden v Maidenhead

In an attempt to secure a second victory, Harpenden travelled to Maidenhead for a return rounders match. Little did they know that Maidenhead had pulled on the resources of Sid, our security man, and Willie, the Alsatian from the Grenfell Arms.

Willie saw his opportunity and, grabbing the ball, made off across the park, thus delaying the game sufficiently to enable Maidenhead to

upset the rhythm of the Harpenden side. The game carried on into the dusk, allowing Maidenhead to pull out their second surprise tactic - i.e., night vision spectacles. The result was a foregone conclusion with Maidenhead winning the return match and setting the record straight.

Many thanks to the Harpenden team for travelling to Maidenhead and for a most enjoyable evening.

## "It's all right, it's only a customer"

Advertising activities at Tek UK include the use of mail-shots. This involves sending advertising material on our products direct to customers and the advert usually includes a tear-off card for the customer to complete and return if he needs further information.

Some of the cards we receive reveal quite a sense of humour beneath the surface. For example, one card was recently returned signed by a Mr. Ben Nevis at a Scottish address.

Another was from a Mr. Potter, who gave his company name as:

LIFE, THE UNIVERSE, AND EVERYTHING COMPUTER COMPANY.

After his telephone number he wrote:

TELEPHONE NOT ALWAYS MANNED.

Maybe there is a company of that name but we are not at all sure.

In a recent issue of our customer

newspaper, Tek News, we included a photograph of Tek's first oscilloscope, the 511, manufactured more than thirty years ago. So what happened? One customer asked if we could supply details of specification and delivery date. In our reply, we were able to send the full specifications, but did not hold out much hope for early delivery, if at all.

We have recently received a letter from a Telequipment user in Ocala, Florida, USA, who is obviously convinced that Telequipment have only marketed one oscilloscope. The letter reads:

Dear Sir,

We have an oscilloscope made by your company. We are having problems with it and need the schematics for it. We would appreciate it if you would send them to us.

Thank you.

## To Err.....

A notice displayed prominently in the reception area of one of the U.K. offices of the world's largest computer company reads,

"To err is human ... but if you want to make a complete hash of something ... but a computer".

This statement is well illustrated by the installation of a computer in 1975 by Avon County Council to pay staff wages.

The computer began by paying a school caretaker at £75 per hour instead of 75 pence. It progressed by failing to reward a canteen worker for the next seven weeks.

A short while later it became more

ambitious and paid a janitor £2600 for a week's work. When he returned the cheque, another for the same amount came by return post.

By now the computer was having fun. A deputy headmistress received her yearly salary, every month; heads of department earned less than their assistants and some people paid weekly tax of more than they earned all year.

Of two hundred and eighty employees who attended a protest meeting, only eight had been correctly paid.

The humans went on strike!

D. Smith

## QUOTE

There is no evil in the atom, only in men's souls.

Stevenson

# Gourmet Corner

## It's Elderberry Wine Time

Autumn time is the busiest period in a winemakers calendar.

Fresh fruits and berries from the hedgerows are obtainable in abundance if you venture into the countryside and seek nature's bounty.

The most popular berry with all true winemakers is undoubtedly the elderberry. They contain all the necessary ingredients we need for wine. They are rich in tannin, acid, flavour and a trace of sugar.

Try this simple recipe for making elderberry wine. You will find that it is easy. Remove the berries from the stalks with a fork. Remember to wash the fruit under running cold water before you begin brewing. Use a fine sieve or collander for this purpose.

### Ingredients for 1 Gallon

3 lbs. Elderberries  
3½ lbs. Sugar  
1 gallon Water  
Pectin Destroying Agent  
Wine Yeast  
Yeast Nutrient

### Method

Place the elderberries in your

## Rabbit Stew-Norwegian Style

1 lb. rabbit pieces  
2 onions  
1 red pepper  
1 green pepper  
¼ - ½ pint of red wine  
5 oz. cream  
Salt and pepper  
2 oz. paprika  
Butter  
½ pint of chicken stock  
4 tablespoons of tomato puree

### Method

Brown the rabbit on all sides in the butter.

Add the sliced onions and cook until transparent.

Pour in the chicken stock, wine and

fermentation bucket and crush them. Pour on the boiling water, and then let it cool to 70° fahrenheit. Then add the yeast and the yeast nutrient.

Leave for three days, stirring daily, place a clean tea cloth over the top of the bucket during this period.

On the fourth day strain the juice through muslin onto the sugar and stir well.

Pour the fermenting wine into a 1 gallon demijohn and fit a bung and airlock.

Place the wine in a warm dark place and allow to ferment out to completion. The wine will then taste dry.

Rack the finished wine into a clean demijohn. Fill to the neck and place a square of clear polythene over the top held in position by a rubber band and store in a cool dark place.

Elderberry like all other good red wines will improve with age. Minimum maturing time 1 year.

All it will cost you to produce this lovely wine is the sugar, a few odds and ends and some patience.

Good health!

Dave Higgins

salt, pepper and tomato puree.

Sprinkle in 1 oz. of the paprika and a generous amount of parsley.

Simmer gently for 30 minutes.

Add the rest of the paprika, more wine, if necessary, half the cream and sliced peppers.

Transfer into a casserole dish and place in a moderately hot oven for 1 hour.

10 minutes before the end stir in the rest of the cream and sprinkle again with parsley.

This dish is very rich and it is best served with boiled potatoes, carrots and a green salad.

Elaine Harpenden

## THE VALUE OF PI

Mathematicians amongst our readers will know that the value of  $\pi$  (pi) is a cumbersome number to work with. It is often simplified to 22/7.

In 1897 the General Assembly of Indiana passed a bill ruling that the value of Pi was 4.

This ensured that all mathematical

and engineering calculations in the State would be wrong.

A pendulum clock for example, would gain about 15 minutes every hour.

Today Pi is back to its original 3.14159265 ...

Derek Smith

# SAFETY 8-1-5T

or how I learned to stop  
worrying and love the car.

## Joining & Leaving a motorway

Motorways often start at a roundabout. Elsewhere, a slip road leading to an acceleration lane is provided. At the start of the acceleration lane, look over your right shoulder to assess the speed of vehicles approaching and the gaps available. Use the acceleration lane to increase your speed to that of the traffic in the left-hand lane. Check your mirrors, signal your intention to move out to the right and when it is safe to do so, steer smoothly into the left-hand lane. Stay there until you are fully accustomed to motorway speeds.

### Leaving

If you are not going to the end of the motorway, you leave it by a deceleration lane (extra strip) which takes you onto the exit road. One mile before the exit there will be a sign for the junction showing road numbers, at half a mile a second sign indicating

placenames and farther on, count-down markers at 300, 200, and 100 yards before the start of the deceleration lanes. Don't rush this in any way. Use this succession of signs and markers to spread your use of mirror, indicators, change of lane, speed, and if necessary, your braking. Remember the routine— **Mirror, Signal, Manoeuvre - MSM**. Don't move to the left more than one lane at a time, nor cut straight across from either the middle or outside (right-hand) lane to the deceleration lane.

If you miss an exit, continue on to the next one. Never reverse, turn in the road, or cross the central reservation.

High-speed driving on the motorway will affect your ability to assess slower speeds. Check the speedometer before approaching the exit road and at regular intervals after joining the all-purpose road.

## Take the Motorway

This interesting photo was taken by Jim Longmead near Junction 13 on the M1 motorway. Jim's suggested

caption is:

"Is this the way British Rail hope to get their passengers back?"



## TOKYO REPORT

As reported last month, Tek Times has received more information on Sony-Tek from our correspondents there, Akira Kawaura and Kiyoko Genta.

Japan is a nation whose population is 117,580,000 and covers 372,000 sq.km. More than 100 Sony-Tektronix sales people are working in this market for both IDD and T & M products, assisted by 70 field

secretaries and 30 supporting engineers and specialists. Another large group works on maintenance and general administrative duties.

Six field offices are dotted all over the country. Needless to say, the Tokyo office is the biggest one handling three quarters of sales in Japan from the immediate area.

The photographs show this, that and the other from our main plant at Gotenba.



Outside View




Board assembly bench




Test bench for the 390AD (Programmable Digitizer)

# Electronic Crossword



**Save the Children  
THANK YOU**

TEKTRONIX U K LTD  
313 CHASE ROAD  
SOUTHGATE  
LONDON N14 6JJ



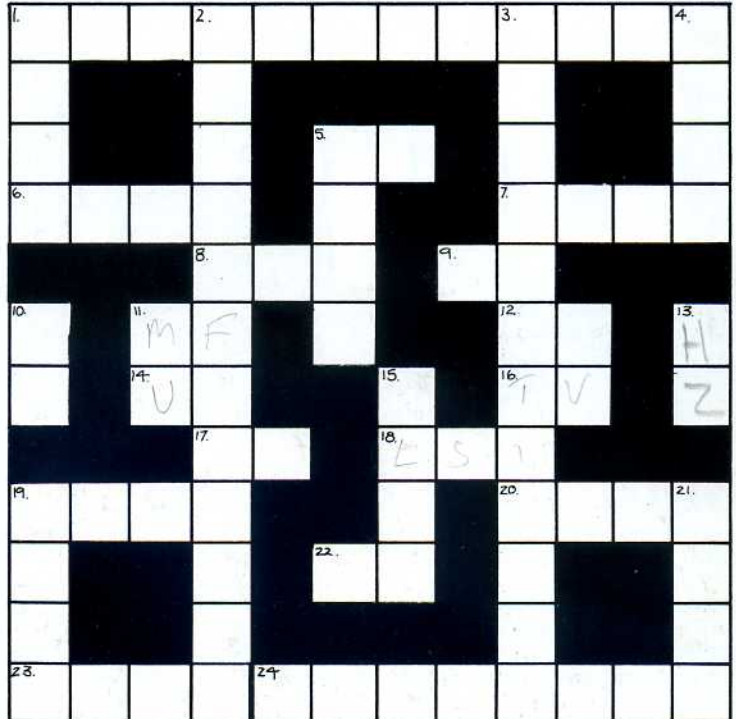
RECEIPT NO: 1756991006      DATED: 13/08/81

YOUR DONATION OF £56.00  
HAS BEEN GRATEFULLY RECEIVED

170780 65 67

*Edmund Peetz*

The Save the Children Fund, Jebb House, 157 Clapham Road, London SW9 0PT



*Thank you, Tek's, for your  
contributions. Let's double  
it next time!*  
(BARBARA HIGGINS, SOUTHGATE)

Continued from page 5.

## ACROSS

1. The ubiquitous measuring tool.
5. Low cost variety of 1 across.
6. Mathematically defined wave.
7. Graphically illustrates for IDD.
8. A kind of memory.
9. Greek letter.
11. Somewhere between HF and LF.
12. Symbolic copper.
14. Abbreviated antenna.
16. Entertaining box, often coloured.
17. All pervading medium.
18. Concentration of transistors and diodes.
19. Encountered in semiconductor theory.
20. Recent type of transistor.
22. Elevated quality.
23. Source of power.
24. Takes a broad view, frequency-wise.

## DOWN

- 1.1 into E.
2. Unwanted signals.
3. Aids current flow.
4. Thermionic cathodes do little else.
5. Measurement base.
10. Ten percent of a ratio.

11. Plate current.
13. New cycles per second.
15. Dense chips.
19. One effect of a magnetic field.
21. Ring main offshoot.

*Solution to crossword in last month's issue.*

R	O	Y	A	L		W	E	D	D	I	N	G										
I	A	P	I	I	N	E																
C	O	C	K		A	N	D		E	L	A	N										
H	H	E	T		D		I	D	A	E												
A	N	T	E		S				A	W	L	S										
K					P	A	R	O	N	Y	M		I									
O	J	O	N		R	E			W	A	S											
					Z	A	D	Y		P	O	L	O									
A	N				R	A			A	M		O	R	B								
N					M	E	E	K		M	A	A	M		W							
T	O	P			W				Y	N		E	Y	A								
I	C	I			W	A	X					R	U	N								
C	H	A	R	L	E	S						D	I	A	N	A						

## Apertaining to Anything or Anybody

When a triviality becomes an obsession,  
It denotes a disease of the brain  
And just like a self inflicted wound  
Can result in being a pain,  
So if you have such a neurosis  
Please keep it, as a private thing  
Don't share it with those about you

Or be cracked, like a bell that won't ring;  
For the mind of a man should be open  
Into which knowledge and wisdom  
can cram,  
For a man can't function on narrow lines  
Like a trolley, a train or a tram.

*John Clarkson*

## QUOTES

Liberty is the right to do everything  
which the laws allow.  
*(Montesquieu)*

There is less in this than meets the eye.  
I'm as pure as the driven slush.  
*(Tallulah Bankhead)*



Mark Rider of Hoddesdon, 3rd across the finishing line.