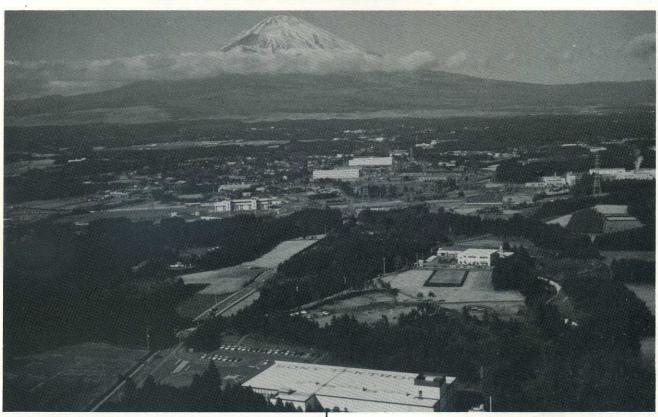
## TEK TIMES

Number Thirty Two

## Around Tektronix.



## Long Service Employees Receive Awards.



"At the recent presentation of Tek UK long service awards, Arthur Hale (left) and Cliff Brazil, both of Hoddesdon, celebrated 25 years with the company. See inside pages for full details."

## Cover Girl

Denise (Dee) Shepherd joined Tek recently as assistant personnel/secretary in Harpenden. Dee's hobbies are oil painting, reading and threes and



This striking photograph of Mount Fuji shows the town of Gotenba in the foreground, located about 60 miles south-west of Tokyo. The SonyTektronix plant at the bottom of the picture produces the 308 Data Analyser and the 335 Oscilloscope. See inside for more photos from Japan.

## Vew Editor.

Ladies and Gentlemen.

In order to ensure that our own magazine, Tek Times, remains strong and informative, it has been decided to adjust the manner in which it is prepared and issued. In order to ensure that each location is more fully represented, Philip Joisce has agreed to undertake the position of Editor. Philip, of course, visits all locations regularly and will establish a rapport with the necessary personnel at Hoddesdon to ensure better coverage from the manufacturing division.

Would you, therefore, with immediate effect, send all contributions direct to Philip at Harpenden and I am certain that you will offer Philip every assistance in maintaining good. interesting contributions - remember, it is your newspaper.

And let's not forget Fred Rose, who deserves a very big 'you've done good'. Fred has been the stalwart behind Tek Times for many issues now and I am certain will still be a regular contributor.

How about some 'new ideas' on how to make Tek Times more interesting. Many thanks for your support.

Alan E. Hutley Publicity Manager

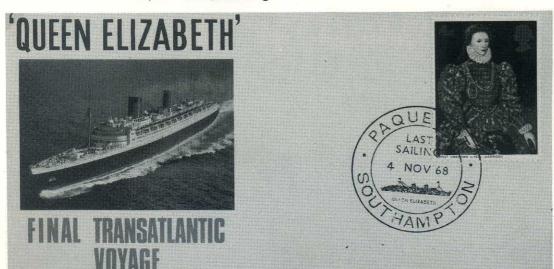
Area Representative Conference

The next Area Representative Conference to take place as follows:-

25 March - at Hoddesdon.

Management representatives will be John Dedman, Guan Tan and David Broadbridge.

## Bronze Medal Awarded Crisis for Exhibit.



Regular readers will know that John Seaman (T&M Product Support, Harpenden) is a keen philatelist and has contributed a long and interesting series of articles to Tek Times, mainly on the subject of maritime postal his-

NEW YORK-SOUTHAMPTON

Recently, John submitted an entry to Stampex '82 (Britain's National Stamp Exhibition) in the British Postal History section. His subject was

"The History of the Cunard Line from 1840 to the present day"

At a recent judging of entries, John's exhibit was awarded a Bronze Medal. The medal will be publicly presented to him at the annual Stampex banquet which is to be held in the Royal Garden Hotel, Kensington, later this month.

This extract from his entry commemorates two events in the life of the famous liner Queen Elizabeth the last two Atlantic crossings as a passenger-carrying ship.

REMBRANDT,

26 Park View, BOTLEY, Hants.

For those wishing to visit Stampex '82, it will be held in both halls of the Royal Horticultural Society, Greycoat St. and Vincent Square (near Victoria Station), London SW1 on Feb. 23-28.

**DCT 28** PARUEBOT 7968 SOUTHAMPTON - NEW YORK OFFICIAL COVER 26 Park View, BOTLEY, Hants.

The Bronze Medal awarded to John Seaman for his entry in this year's National Stamp Exhibition in London. The medal, which weighs nearly 3 ounces and is more than two inches across, bears the same image of Queen Victoria that appeared on the world famous "Penny Black" stamp, specimens of which are worth up to £100 or



## Cheadle.

A hush had fallen over the company

Men looked all around with dismay The 'scopes were switched off and silent

And soldering irons cold where they lay.

The Management locked in the boardroom

In discussion both heated and strong

And the engineers struggled with conscience

As the day stretched out, ever long. No meals to be had in the kitchen The local shop ran out of smokes The weather outside as cold as the

And t'was God help him who made iokes

The disaster had come there amongst them

Their cups stacked high near the sink

And the only word that was passed around.

"The tea-turn has gone on the blink"

No fires to be lit on the benches No billy-cans swinging on wire Instead, the gloom of long faces As the misery piled higher and

Then Debbie appeared, looking radiant

A girl of great charm and good fettle

And brought calm once more to the workshop floor

In her hand, an electric kettle. The jostling and pushing, and "Get one for me

And the smiles on the face of the crew!

And Maggie Thatcher announced to those in the House,

That Tektronix was back on the brew.

John Clarkson Manchester

## *QUOTES*

Advertising is the art of selling without actually lying. (Sunday Times).

What is written without effort is generally read without pleasure. (Dr. Johnson).

## Ten, Twenty and Twenty Five Year Awards.



20 Years Service Left: John Seaman (Harpenden) Right: Jim Hutchings (Manchester)

Tek UK's annual Long Service Luncheon was again held in the Hatfield Lodge Hotel during December. The event had to be postponed for several days because of the heavy snow falls during that month. However, the luncheon took place on December 21 and Ed Morrison presented the awards to twenty one employees who were able to attend.

Another four who were unable to attend were – Mike Croley (Harpenden), Janice Laver (Harpenden), and Phil Thomas (Harpenden), all 10 year employees, and Reg Watson (Maidenhead), 20 years service.



10 Years Service
Back Row
Charles Lancaster (Harpenden), Brian
Dedden (Harpenden), Joe Howard

Front Row Peter Groom (Harpenden), Betty Houpt (Southgate), Mick Corley (Harpenden), Dorothy Elliott (Manchester), Bob Shaw (Manchester).



10 years service Back Row Les Eveleigh (Hod), Janice Gray (Hod), Luke Udunuwara (Hod).

(Maidenhead), Bob Frost (Harpenden).

Front Row Pauline Polley (Hod), Doris Cordell (Hod), Roger Smith (Hod), Jennifer Gates (Hod), Glenys Cunningham (Hod)

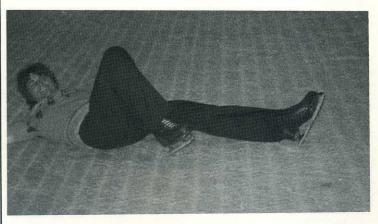
## Now Hear This.

This is probably the longest sentence we have printed in Tek Times. It is an extract from a government document on export regulations.

No person, firm, corporation, partnership or other business organization, without prior disclosure and specific authorization, shall do any of the following acts, directly or indirectly, or carry on negotiations with respect thereto, in any manner or capacity, on behalf of or in any association with any named respondent or related party, or whereby any named respondent or related party may obtain any benefit therefrom or have any interest or participation therein,

directly or indirectly: (a) apply for, obtain, transfer, or use any license, Shipper's Export Declaration, bill of lading, or other export control document relating to any exportation, reexportation, transshipment, or diversion of any commodity or technical data exported or to be exported, by, to, or for any named respondent or related party denied export priveleges; or (b) order, buy, receive, use, sell, deliver, store, dispose of, forward, transport, finance, or otherwise service or participate in any exportation, reexportation, transshipment, or diversion of any commodity or technical data exported or to be exported.

## An Evening on Ice.



"Would you like to go skating?" Sharon asked me one afternoon.

"Not really." I thought, as I made some non-commital reply.

Never-the-less, I mentioned the idea to my wife and two friends of ours, and it was greeted with much enthusiasm. So it was that I found myself somewhat reluctantly boarding a coach bound for Richmond ice rink, one Tuesday evening. The coach was more or less full, so it was obviously a popular idea, with other Tek people arriving from Maidenhead, Southgate and Harpenden, to make quite a successful turnout.

Unfortunately, this did little to bolster my confidence, in fact just the opposite. More people means less space and more collisions. Furthermore, having bought our tickets for the skate hire, we then reached the main rink. The sight of around three hundred people travelling rather fast in an area smaller than a football pitch does not conjure up ideas of a quiet evening's entertainment. In fact it looked positively dangerous! We were extremely grateful that there was a smaller, separate rink hired for our exclusive use.

"Shall we have a drink first?" I suggested, tentatively, not wishing to expose more of my fears than necessary. To my surprise my companions readily agreed. "Are they as keen as they are making out?" I thought.

Having consumed a quantity of artificial courage, we wandered down to the Arosa rink, to find most people already on the ice, so we went to put our skates on. This, by the way, is a very slow procedure, not at all in keeping with the popular expression.

Nevertheless, suitably attired, we approached the ice. It is a strange sensation to deliberately put your feet onto a slippery surface, and I found some difficulty in persuading myself to let go of the side. However, the sight of other people moving gracefully around on the ice forced me to admit that if they can do it, so can I.

Eventually, having made several circuits without mishap, and only touching the side occasionally for a rest, I retired to the bar for some well deserved refreshment. I must admit that I was feeling rather pleased with myself, and returned to the ice with rather more enthusiasm than before.

"I would like to take a photograph of you," said Sharon, "so could you fall down for me?"

"Oh, and it has to be within thirteen feet of my camera!"

Having prided myself with not having fallen over thus far, this was rather disconcerting, but I dutifully obliged. Having made sure that everyone knew it was deliberate, I continued on my way, and then proceeded to fall down three times in as many minutes. In fact, for the remainder of the evening I spend a great deal of time picking myself up off the ice, but consoled myself with the fact that it must be due to my becoming more adventurous.

Eventually, of course, we had to leave, by which time I was enjoying myself so much I felt I could have continued all night. If the opportunity should arise, I would certainly go again, and without the misgivings that accompanied me on this trip.

Dave Forshaw

## NEW AREA REPRESENTATIVES FOR 1982.

Here are the Area Representatives appointed following the recent ballots:-

Livingston: Pat Coulson.

Manchester: David Coombes.

Southgate: Jane Fussell, Karen Leith. Hoddesdon (Building A): Bora Dzodzovic, Doreen Rowson. (Building B): Linda Hughes. (Building C): Andrew Forbes, Les Pepper. (Building D): Nick Fitzgerald, Dennis Game. (Building E): Mary Taylor, Sharon Barnes.

(Maintenance): Dick Harrison.

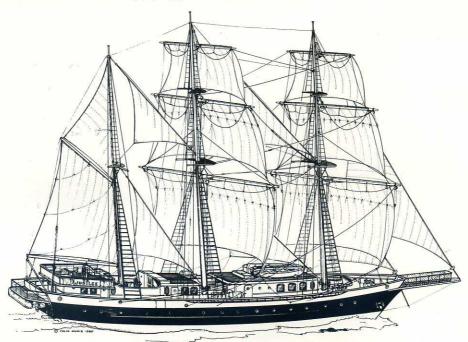
Maidenhead (Warehouse): John

Trew. (Distribution): Brian Rickett. (Service): Jim Cartwright, Colin Read.

Harpenden (Service): Mustafa Suleyman.

Ron Tradgett (Southgate) has assumed the duties of Area representative Coordinator in place of Peter Holness, who has retired from this position.

## The Jubilee Sailing Trust.



The Jubilee Barque for the Jubilee Sailing Trust. 135 Foot Sail Training Vessel for 30 Trainee Crew of Mixed Abilities.

Designed by Colin Mudie, FRINA.

There must be at least a few of our readers who wonder what sales and marketing folks do in their spare time. (There are probably more sales and marketing folks thinking what spare time?)

One of my 'out of hours' activities is the running of a youth club for 13–15 year old teenagers, the Inter-Squares YC, Dunstable. Since I am also actively involved in dinghy sailing, many of our young members have acquired more than a passing interest in sailing. These members also have a desire to help those less fortunate than themselves, and in combining these interests, they have 'adopted' the Jubilee Sailing Trust as their charity.

So what is the Jubilee Sailing Trust? (JST) In 1977 Christopher Rudd, a teacher and sailing instructor, submitted to the Oueen's Silver Jubilee Appeal Fund a scheme for an offshore sailing vessel from which nobody should be debarred by reason of physical handicap. There is enormous benefit to be derived from the sharing of an adventurous activity afloat - the real sense of achievement in meeting the challenge of the elements, the body-mind harmony and the sense of closeness with the rest of the crew, which develop - and the general boost to morale which these ventures foster. Christopher's concern was that the physically disabled were, in the main, unable to enjoy these challenges or to gain the resulting benefits. He was convinced, on the basis of his twenty years experience of boats, that those with physical handicaps could be given the opportunity to make a real contribution to the crewing of an offshore sailing vessel, side by side with their nonhandicapped companions. The JST was registered as a charity in 1978 to develop the initial idea into a practical and feasible reality.

The Trust ran a practical feasibility

study using two square rigged vessels. the Marques and the training ship Royalist, both of which were chartered for this purpose. They put to sea with crews of mixed abilities on voyages which included cross channel passages. These voyages proved that not only did the crew members combine into a working team, but that the attainments of the disabled far exceeded their own and the Trust observers' expectations. Following the study, the Trust decided to have designed and constructed a purposebuilt vessel in which the physically handicapped will represent 50% of the trainee crew. The vessel - to be named 'Lord Nelson' (after the country's foremost disabled sailor) - will be the only offshore sail training vessel in the world specifically designed and built for a crew of mixed abilities in which the disabled people, including those dependent on wheelchairs for mobility, will be able, and expected, to take a full and active part in the running of the ship.

There are, of course, unusual design problems associated with the building of such a vessel. For example, in order to allow the passage of wheelchairs along the deck on each side of the deckhouse, the beam of the vessel had to be wider than is normal for a training ship. This in turn produced a minimum length, and hence a minimum sail area to power the vessel.

The hull size dictated the crew size and the sail area, and thus produced the problem of how this was to be handled by a crew containing a number of persons with different handicaps, all needing to be usefully employed at all times of setting and furling sail and manoeuvering under sail

Different rigs were studied and the force of handicapped people of different types was measured, together with the problems of arranging the vessel so that they could apply that force.

The solution was to be found in a square rig. Square rigs have been for centuries the best way of harnessing the wind to drive large ships, and in spite of sail power being replaced by turbine power, the square rig has recently been recognised as having many advantages on board a training ship for young people. This is especially so where the training ship is designed for boys and girls aged 14-16, who do not have the strength of those somewhat older, for the sail area is so split up and so handled that the individual rope loadings are very low when compared with fore and aft rigged vessels, such as Admiral's Cup offshore racers.

Since the Lord Nelson will carry trainees of all ages and both sexes the same principles apply, and rigging her as a barque, i.e. square rigged on fore and main mast and fore and after rigged on the mizzen mast (the one at the back!) will enable all the trainee crew to be allotted useful jobs within their physical capabilities – and there's a lot to do! Use of modern gear such as roller furling stay sails will increase the amount that can be done by the handicapped to about half of all the seamen's work on board.

The Lord Nelson will have a steel hull, which will be built at the training centre of British Shipbuilders (one of our customers) on Tyneside. The overall length will be 135 ft and the beam will be 27 ft.

Once the hull is complete, it will be transferred to the yard of AH Moody and Son on the Hamble River (Southampton) for rigging and fitting out. As well as special facilities for wheelchairs (which will include wheelchair tracks on the deck and hoists between decks) the Lord Nelson will be equipped with many aids for the disabled. The deaf, for instance, are to have a system of warning lights to attract their attention for orders about the handling of the vessel. The

blind will have an audio compass to steer by and different areas of the ship will have different surface finishes to help with orientation.

All of this will of course cost a lot of money – £2,000,000 to be precise. So far £400,000 has been raised, and once the level reaches £1,200,000 work will begin on the hull construction.

The main money-raising activity of the Inter-Square Youth Club members has been to 'man' the JST's stand at both the London Boat Show and the Caravan, Camping and Boating exhibition (which is held at the NEC).

Children seem to have a 'knack' of getting money out of adults – whether it's extra pocket money, holiday money, ice-cream money or whatever! Putting this 'knack' to good use is paying off, since so far they have raised £550 – and that was in only two days of stand-manning! One of the girls even managed to get 10p each out of two coppers who were patrolling around Earls Court!

If you would like to commemorate 'Maritime England Year 1982' and join the many celebrities who are supporting this venture (e.g. Sir Douglas Bader, Clair Francis, Sir Alec Rose, Howard Lang – Captain Baines in the Onedin Line – etc) then I would be delighted to pass on your donations. Alternatively, you can send them direct to the Jubilee Sailing Trust at:

Tavistock House North, Tavistock Square, London WC1H 9HX.

Finally, if you are interested in becoming a crew member (whether you are abled or disabled, 20 or 60 years old) at a future date, let me know, and I will ensure that your name is added to the crew list which is now being assembled.

Howard Rippiner Harpenden

## Siegfried's Law. I SPY-TC EYE.

Numerate readers of Tek Times will recall the treatise on Murphy's Law in an earlier issue. This dealt with his now widely accepted theory on the behaviour of inanimate objects. A fundamental principle of Murphy's Law was the realisation that 1 plus 1 is nearly always not quite 2.

Since the first appearance of Murphy's Law and its inevitable corollories, the scientific world has been split into two bitterly opposed camps on the truth or otherwise of this basic mathematical concept. Theory and counter-theory have been put forward, most of them in favour of Murphy's Principle. Now, from Professor John Siegfried of the University of Wisconsin comes the most powerful argument yet seen in support of the traditionalists who still insist that 1 + 1 = 2 precisely.

Readers comments will be welcomed on this subject. (Based on a contribution by Derek Smith).

$$\ln \left\{ \lim_{\delta \to \infty} \left\{ \left[ (X')^{-1} - (X^{-1})^{2} \right] + \frac{1}{\delta} \right\} \right\} + \left( \sin^{2} q + \cos^{2} q \right)$$

$$= \sum_{n=0}^{\infty} \frac{\cosh p \sqrt{1 - \tanh^{2} p}}{2^{n}}$$

#### 'WAMSAD' Presentation.

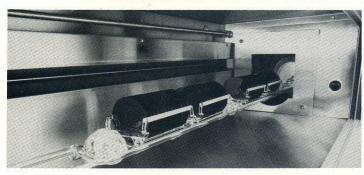


Following the recent very successful "Tour-de-Tek" sponsored cycle ride, WAMSAD, the Windsor and Maidenhead District Sports Association for the Disabled, received a cheque for £327.86 from Tektronix at Maidenhead.

The money raised by Tektronix Sports and Social Club, Maidenhead,

brings the running total to almost 75% of their first year target of £1,000 in support of the charity.

In presenting the cheque, Keith Retallick spoke of the pleasure of fund raising activities for such a worthy cause and extended Tektronix best wishes to WAMSAD.



Diffusion furnace in Building 59, showing silicon wafers being fed in for processing.

First there was TEKWEEK from our parent company in Beaverton, Oregon. Then came TEKTOPICS in 1965, launched by Roy Perry and Fred Rose in Guernsey (for Tektronix Ltd and Tektronix Guernsey Ltd), followed by TEK TIMES in the UK and AMITEK in France. Now, we welcome TC EYE, employee newspaper of Tektronix Canada, and the high standard it has established from issue No. 1.

We would like to echo the editorial comment in TC EYE. All these journals have one thing in common; they are about people, their concerns, happenings and achievements, and can only survive by regular contributions of stories and photographs. Don't worry about literary style - it is the editor's job to put any finishing touches necessary to any material submitted. Send anything you think will be of interest to The Editor, Tek Times, Harpenden. Photographs will be returned after copying, so you need not worry about losing them.



One more thing, don't think that your efforts have been ignored if your contribution does not appear in the very next issue of Tek Times. A number of stories and articles are held in reserve for future use and to allow the editor to arrive at a balanced issue each time. The main thing is to contri-

## Building 59,

Building 59 is one of the latest additions to Tek's industrial site in Beaverton, and you would expect a building with such a prosaic title to be uninteresting. But it is, in fact, a structure of very great importance to Tektronix and likely to be increasingly so in the future. It is dedicated to the design and manufacture of integrated circuits, the "chips" that help to keep our products ahead of the competition. These devices are common enough in calculators, computers and watches but those made by Tektronix are more often used in instrument control circuits, such as channel switches, vertical and horizontal amplifiers, readout character generators and A to D convertors.

Tek began making its own chips as far back as 10 years ago, since when the devices manufactured have becomes increasingly complex. Most of the monolithic circuits are bipolar in structure, but MOS circuits are assuming an increasingly important role in some instruments. Manufacturing processes include the fabrication of photomasks and screens for thick film processing, ion implantation and high temperature diffusion and laser trimming.

In addition to monolithic device manufacture, we also produce a range of hybrid circuits. These are an assembly of semiconductors and

other devices on a ceramic substrate. One of the most advanced techniques being used is the building of hybrids on a multi-layer ceramic which has more than one metalisation layer in the substrate.

Building 59 is built to very precise specifications. Control of vibration is vital to the successful manufacture of integrated circuits. Equally important is the need to avoid contamination caused by impurities in the air, process gases, water and raw materials.

It is interesting to compare the air particle count in Building 59 with the previous "clean areas" in other buildings. In Building 48, for example, the count was typically 100 particles per cubic foot of air. In the work areas of the new building the count is around

In front of Building 59 is a utility centre, and under it is an underground lake which serves as a reservoir providing water for normal heating and cooling functions, as well as a very convenient water supply in the event of fire emergencies.

How much did it all cost? - well Tektronix does not make it a practice to let the world know what its engineering projects cost but we have said that Building 59 cost "significantly less" than the \$80 million reported in one magazine.



Building 59 - The Microelectronics Design and Manufacturing Centre at Tektronix Industrial Park in Beaverton, Oregon.

#### Sports & Social Club

#### Hoddesdon Social Club.

Well done gang! Thanks are most certainly due to the 32 fearless, fur coated and booted beings who braved last Saturday's weather to make the Milton Keynes shopping trip a success yet again!

I would like to take this opportunity to thank all members and friends who have supported us in our efforts over the past year to make the Social Club an active one. We have even got two or three trips for next year fully booked. Listed below are the trip and activities enjoyed by most of us last year:—

Feb. – Walk & Disco. April – Paris Weekend. May – Jim Davidson at Cesars. June – Windsor Safari Park. Sept. – Bar-B-Cue. Oct. – Amsterdam Weekend. Nov. - Ice Skating. Dec. - Shopping Trip & Disco.

That's not to mention the many sporting activities such as table tennis, football, rugby and darts.

For next year we are starting with Cannon & Ball at the Circus Tavern in Feb., The Sound of Music in the West End in April and another weekend abroad not the mention discos, ice skating, theatre visits and shopping trips.

So keep up the support which is the only thing that can keep *your* Social Club alive.

Have a great new year!

Sharon Barns

## Weekend visit to Amsterdam by Hoddesdon Social Club.

To describe the start of our weekend you could use words like fearsome or horrendous. Because of traffic we were unable to stop on the way for a coffee, so we made our way straight there only to discover that our ferry was to be delayed by four hours. The seas were so bad that a lorry had overturned on the boat coming from France to pick us up, and has spilled his load of cherries all over the hold.

When it eventually arrived we gingerly boarded and made our way up to the exchange, duty-free and lounges. Some people were feeling a bit "Iffy" even as the boat was still in dock, and as it set off we were all wishing we were still at home. Almost everyone in our party were to be found clutching paper bags (courtesy of P & O for the obvious purpose), or lavatories and wash basins after the first half hour. As we were docking in Boulogne a wave caught us and sent the boat crashing onto the dock and people, tables and chairs and anything else mobile crashing to the floor! That finished off ost of the people who hadn't already been ill, and the duty-free shop looked like a hurricane had hit it! (Actually it was a force eight gale.)

On the coach again, and on dry land, (Sheer Heaven!), we felt better and slept until Belgium where we stopped for breakfast before making our way to Amsterdam.

Once there, we had a quick tour of the city before checking in at our hotel which was called the "Schiller" and was situated in the centre of Amsterdam and surrounded by bars and restuarants. There was even a Wimpy and a MacDonalds just round the corner.

That afternoon we had the choice of going off on our own or going to the cheese and clog factories. At the cheese factory we saw the way all the different cheeses are made and the goats in their enclosures. They were kept permanently in small stalls and fed from a conveyor belt that ran right down along one side of the stalls. After an explanatory talk about cheese, which was very interest-

ing, you could go into the shop and buy all of the products made there. At the clog factory they showed us how the clogs were made and they also had a souvenier shop.

In the evening we went on an organised tour of the Red Light Area of Amsterdam. It is an experience that no visitor to the City should miss, because it just can't be believed until seen. The "Ladies of Ill-Repute" sit in their windows with the proverbial red light shining, reading or knitting, seemingly not noticing the staring eyes of the tourists on them. It is a dangerous place to be alone though, as you could imagine. We were in a large party and a man drew a flick knife on our leader for simply being in the way of his car! After this we left and went off on our own.

After breakfast the next morning we set off on our return journey, visiting Antwerp before stopping off in Brugge for sight-seeing and shopping. Brugge is famous for it's lace and chocolate making, and you couldn't come away without buying one or the other. (I bought both!) It was mostly reasonably priced, although having become used to Dutch gilders we got a little confused with Belgian francs, and even more so when we got to France and had to use French francs.

By the time we got to France we were all feeling a bit dubious about the Channel crossing, but much to our relief it turned out to be a smooth and calm trip, and no one was ill.

We all arrived home somewhat tired and bedraggled, but with the memory of a fantastically varied and enjoyable weekend. This is our second weekend trip abroad and our second great success. It seems a shame however that for Paris we had the support of only eight members and for this we had the support of only nine Hoddesdon members and two Harpenden members. It would be nice if some of the people who complain that the social club doesn't do anything would join in the fun!

Thanks for a great weekend Jean!

Sharon Barnes

## Eric Snowden-Retired.



Eric Snowden has been working at the Hoddesdon plant for nearly four years before retirement caught up with him recently.

He was presented with a travelling clock and a ball point pen by the General Manager, Guan Tan with members of the Quality Audit department present.

Eric was responsible for the testing of electrical components in the Incoming Goods Inspection department.

We all wish Eric a long and happy retirement.

Eric Bidwell Q.A. Co-ordinator 3.12.81

## Self Defence for Beginners.

Most attackers take less than 30 seconds to inflict their sadistic damages; the results of which can last for very much longer – sometimes for ever. A little training can save a lot of trouble and it is rare for an attacker to expect retaliation, however minor. Anything which will give the attacked person time for thought and rapid retreat must be invaluable and a real investment for the future.

Joe Krystman and Ray Ganderton are planning to run a further one-day introduction to self-defence for anyone interested. The course is to contain sections designed especially for the ladies, and all that is necessary is a lot of enthusiasm, some dexterity, and surprisingly little brawn.

The plan is to hold the course at a custom-made hall in the Welwyn/Hatfield sports complex. Bring husband, wife, girlfriend or boy-

Self-financing is the key, and all we have to budget for is the cost of room hire, about £45 for the day. A minimum of 16 participants and a maximum of 30 is hoped for, so the cost will vary from £1.50 to about £3 depending on the numbers taking part. The date is expected to be a Sunday in April, from 10.00 a.m. to 4.00 p.m.

Please remember, as with any sport or pastime, insurance against accidents is your own concern. Neither Tektronix nor the organisers can accept liability for any such accidents. However, you will be in good hands. Joe and Ray are qualified instructors with certificates to prove it.

Closing date for booking the room is mid-March. Further details from Ray Ganderton, Harpenden.



## Wha's like Us?

It seems that everywhere we turn, we are constantly reminded of the influence of Scotsmen. In industry, science, the arts and sport, the Scot has had a decisive influence on our lives, and not only in the British Isles.

Ann Glasgow of our Livingston office sent us the following letter which appeared in the 9 September issue of the Edinburgh Evening News:-

An average Englishman lives in a home he calls his castle. Watch him enjoy a typical English breakfast of toast with marmalade invented by Mrs. Keiller, of Dundee. See him slip into his national costume, a raincoat patented by Charles Macintosh, a Glasgow druggist, follow his footsteps over the linoleum floor covering invented in Kirkcaldy.

Out he goes along an English lane surfaced by John Macadam of Ayr (tar macadam). He smoked a cigarette, first manufactured by Robert Cloag of Perth, boards a bus using tyres invented by John Boyd Dunlop of Dreghorn, and travels by rail – a reminder of James Watt and his steam engine.

At the office he opens the mail with stamps adhesive invented by John Chalmers, of Dundee, and reaches for the phone invented by Alexander Graham Bell. In the evening he sits down to his national dish of "English" prime roast beef, raised in Aberdeenshire. This sets his patriotic heart beating and he enters the dining room whistling "Ye Mariners of England", written and composed by Thomas Campbell, of Glasgow.

Outside, little John plays on his bicycle invented by Kirkpatrick McMillan, a Dumfries blacksmith. Mother does her washing with bleach invented by James McGregor of Glasgow. Dad watches the news on television invented by James Logie Baird, of Helensburgh.

He hears an item about the US navy founded by John Paul Jones, of Kirk-caldy, and maybe recalls that the radar which they and other fleets use was invented by Sir Robert Watson Watt, of Brechin, and that the Declaration of Independence, which the Americans are so proud of, was written and improved on by an immigrant Scots minister named Withersnoon

In desperation he may pick up a Bible, but the first name he sees is James VI of Scotland, who authorised its translation.

It is hopeless. Nowhere can an Englishman turn to escape the ingenuity of the Scot. He could take to drink, but we supply the best in the world.

He could stick his head in the oven, but coal gas was discovered by William Murdoch, of Ayr. If he survived, but was injured, he would simply find himself on the operating table injected with penicillin discovered by Alexander Fleming of Darvel, and operated on while under anaesthetic discovered by Sir James Young, of Bathgate, and under antiseptic surgery pioneered at Glasgow Infirmary by Lister.

He can take no comfort to find he's as safe as "the Bank of England" because this was founded by William Paterson, of Dumfries. His only remaining hope – a transfusion of good Scots blood which would entitle him to say: "Wha's Like Us?"

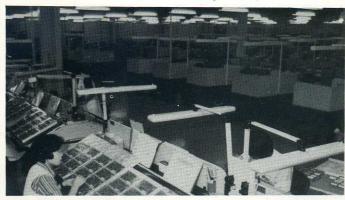
T.M. Mills Edinburgh

#### GOTENBA~ JAPAN.

Photographs of the interior of the Sony-Tektronix plant and front cover picture by courtesy of Akira Kawaura, Kiyoko Genta and Naoki Tomisawa.



Test Bench for the 308



Assembly line with hand mount table on bottom



Test Bench for the 335

## New Words Department.

As we all rush headlong into the exciting new tomorrow's-world of technology, most of us manage to keep pace with the veritable Niagara of new words spawned by an ever growing community of international technical wizards. Once you get used to it, it becomes not too difficult to work out what is meant by old fashioned words like host, logic, emulate, program(me), resolution, function, interrogate and hold - words which have taken on new and more significant dimensions since their humble origins a few hundred years ago.

But every now and then, one word comes along which either sends folk rushing to the dictionary or which baffles everyone except, presumably, the author. An example of this is the use of the words SYNERGISM and SYNERGISTIC. You can look it up if you wish, but not all dictionaries include them and its a fair bet that you will have forgotten what they

mean by the next time you meet them.

The latest new word to come our way is HAVERFUNCTION, (a technical term in a signal generator's specification). The nearest definition (in Chambers Dictionary) is the word HAVER which our Scottish readers will instantly recognise. The dictionary says – HAVER (verb). To talk foolishly or to talk nonsense. (origin, Scottish).

A similar interpretation is given in the Oxford English Dictionary. Can anyone clarify the word for us?

## QUOTE

Any system which depends on human beings is an unreliable system. (Source unknown).

#### TRUST IN TEKTRONIX.

Pat Plimmer (Facilities Manager, Southgate) has sent us details of a cheque which should disprove the myth that Scotsmen are rather cautious with their money. This customer sent in a blank cheque to cover the cost of the ex-demo instrument they had bought, leaving Tek to fill in the amount required.

BANK OF SCOTLAND 235 SAUCHIEHALL STREET, CLASGOW G2 3EY		80-07-74
Pay Jektronics Lod.		21/12/181 or Order
	.C	
BELLMATIC LEISURE LIMITED		
# 263258# BO#O??\I		

# WANTED VERY MUCH ALIVE AREA REPRESENTATIVES

#### Rewards

Increased Understanding of TEK. Increased Ability to Communicate. Meet Employees in Other Divisions. Learn from Guest Speakers from Everywhere. Learn More About the Whole Corporation.

Elsewhere in this issue you will see that we have recently held our Annual Area Rep election and panel members (chairmen) have been nominated for each location.

You will also see that the numbers per location vary enormously. We try to arrange representation on a geographic basis with each Area Reprepresenting approximately 25 people. Using this as a guide line you will see that we still have the following vacancies.

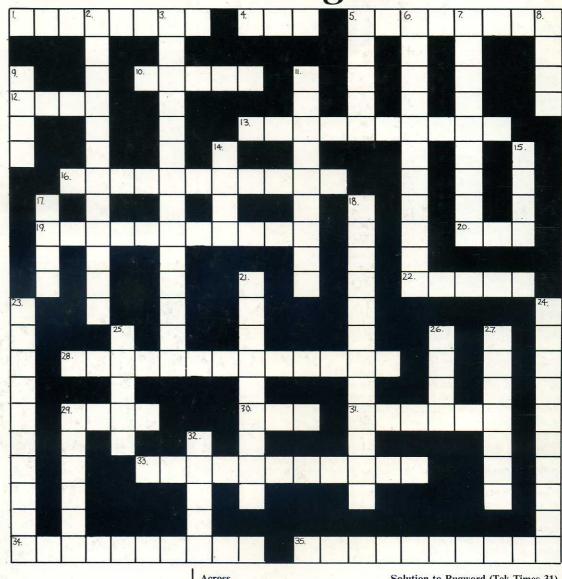
HARPENDEN – 2 in the sales areas – both Eastern Area and T&M and IDD Sales Areas.

MAIDENHEAD - 1 to represent the Sales Area and the middle floor. MANCHESTER - 1 to represent the office area.

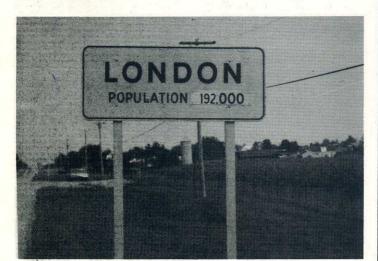
How about some nominations! Talk to your local Area Reps, or Ron Tradgett who is our new co-ordinator, or me and we will act with all speed and alacrity. Don't forget it's your activity and your opportunity to benefit.

Jim Rockall Southgate Ext. 287

## Name Your Colleagues.



#### Is London Shrinking?



Not yet, although the recent British Rail strike will have reduced its normal 8 million by a percentage point or

This city sign is, as you may have

guessed, of one of the many other Londons around the world – the one in Ontario, Canada.

(Photo by Derek Smith, Harpenden)

#### Acros

1. Penny ark. 4, 10 Big debts. 5. Hair sock. 12. See 9 down. 13. Gnaws along. 16. Encoded sort. 19. Drag to trent. 20, 11 down Try and go near. 22. See 14 down. 28. Kept the drip lo. 29, 30 A nut nag. 31. See 27 down. 33. For all dined. 34. Diners room. 35. Alley haunt.

#### Down

2. Stolen sphere. 3. The literal kick. 5, 26 Clock me in. 6. Art is risque. 7. Or resumed. 8. See 14 down. 9, 12 across For reeds. 14, 22 across Sigh to mud. 15, 8 Grey tank. 17. See 25 across. 18. Planters bays. 21. Torch sign. 23. Late hurrah. 24. Go amuck day. 25, 17 Rainy garb. 27, 30 across Make pair recur. 29, 32 Alarm sleigh.

Your compiler means for offence to those whose names he has abused, nor to those whose names have not been used.

All answers can be found in the Tektronix internal telephone directory – as a last resort.

Compiled by Mike Threds

Solution to Bugword (Tek Times 31)



Quote

Great Architecture is like frozen music. (Von Schelling).