

Some said it would not SURVIVE

That was one year and seven issues ago, now here we are still going strong. It has, however, only been made possible by contributions received from you and on that score the Editors are indebted to the few stalwarts like Dave Higgins and Ray Ganderton, who manage to come up with something for every issue. Well done and thank you.

It would be great to see more contributions, even if it is only a letter to the Editor or a few words on some interesting experiences. It all helps it become more interesting and, more importantly, your newspaper. It is our aim to increase the frequency to monthly and with this in mind, we hope to see those contributions pouring in.

The exhibition season is rapidly approaching and it will be our policy to keep everyone informed of those exhibitions in which we are participating by showing pictures of the stands and by relaying some of the funny moments and problems that occur during these events, so we hope our Field Sales Engineers will

keep us supplied with these points. For instance in the next issue we will tell you all about Testmex, a new national instrument show to be held at Wembley Conference Centre on June 19-21, where we will have two separate stands for Tek and Telequipment products.

We hope also in the immediate future to run a feature on the EMC operation to give you an insight into the people, its works and how it will interface with the UK and other operations.

It is also hoped that Ed Morrison will be telling us all about his trip to China complete, we hope, with pictures.

These are just a few of the ideas that the Editors are coming up with to make *Tek Times* more interesting. We hope you can come up with many more. It would also be nice to see our managers contribute, we do not really seem to be receiving anything from this direction.

Remember! It is everyone's newspaper.

The Editors

MAY 1978
Number One

TEK TIMES

Your Newspaper... about time



Ed Morrison-one year on

For me, this first year in the U.K. has been one of excitement, challenge and personal satisfaction. As a family we are absolutely enchanted with London. We have lived in Los Angeles, San Francisco and Portland, Oregon. You can believe me when I tell you there is simply no comparison. Pam is constantly on the go and I believe I am even beginning to detect an accent with Tammy and John (ages 13 and 12). We live in a Tudor Style House and enjoy it more than any home we have had in the past. It has leaded lights, oak beams and is authentic even to the point of wooden latches on the doors and a ship's staircase more than 200 years old.

We travel as much as time permits and have been from John O'Grady's (by heritage, Scotland is my part of the country) to Lands End. There is so much to see and do that it is frustrating at times when trying to

Why a newspaper anyway? Newspapers are about communication and that is exactly what the intention in *Tektronix* have, of course, grown rapidly in the U.K. with locations as far apart as Dublin, Maidenhead and Livingston and then there are the lonely field sales people (ah) who can really feel cut-off. I know, I used to be one. We hope that *Tek Times* will help solve some of these problems and draw everyone closer together and make a united company.

The contents of this first issue, we hope, will stimulate ideas and suggestions for future issues. It must be stressed, however, that like "The Times" we intend to be extremely professional and the editors will resist any "Exchange and Mart" type columns. The format will be maintained throughout and we hope the result will be a newspaper that we can be really proud of. Should you have any ideas, suggestions or constructive criticisms send them to either of your editors.

Initially it is suggested that the frequency will be quarterly. If, however, there is evidence of sufficient support on a continuing basis, this frequency can easily be increased. Putting a newspaper to bed is hard work, even a small one like this can create headaches. For instance this column is being written at 4.25 a.m. Much has been said about in-house newspapers, mostly derogatory, possibly because they are all left to one person to sort out. It is hoped that this will be a team effort, remembering it is your newspaper, it will only work if you want it to. The format was approved at top level in both U.K. and Guernsey. The contents have been read only by your editors, other than any contributions by management. They have not seen or read any of the words contained herein. It is all down to you.

For all The U.K. is a fascinating country but even more so to an American because we can easily relate. It was less than 400 years ago when a small ship called the *Mayflower* sailed with 102 colonists from Plymouth, England to what is now known as Plymouth, Massachusetts, U.S.A.

With the exception of Sony *TEK* in Japan and our new office in Brazil, I have spent some time at all of our subsidiaries and find *TEK* people pretty much the same around the world - enthusiastic, energetic and friendly. *TEK* U.K. has certainly all of these attributes and then some. Obviously, it is by far, my favourite. Although, I have all the nationalistic pride that one might expect, I am in no hurry to return to the States. When the time comes, I am sure I will have worn out my welcome here and will have to be asked to leave, but the urge to return will always be there.

The Editors




It's very unusual for any newspaper to have two editors but when two work as a team there's only one winner - you the reader and remember it's your newspaper.

Eddie Curran, Personnel Manager based at Southgate. Joined the Company in 1962.

Alan Hutley, Sales Promotion Manager based at Harpenden. Joined the Company in December 1975.

Correspondents Needed
As the leader has explained this is to be your newspaper. Your editors need correspondents in each location - Dublin, Harpenden, Hoddleston, Livingston, Maidenhead, Manchester, Southgate (Chase Road and Chelmsford Road).

You will simply be required to act as a contact point for the people in your location and you will interface with the editors. It will not be necessary for you to offer written contributions although this ability would help. The main function of a *Tek Times* correspondent would be to channel ideas and stimulate interest. It should be emphasized that this will be a voluntary position and must be carried out in addition to your normal *Tek* duties. If you are interested please give either of us a call or just drop us a line.

Cover Girls



Valerie Vernon-Smith joined Tektronix, Harpenden on the 13 March 1978 and on the 2 October became Secretary to Jim Rockall the Personnel Administrator.



Kate Turner joined Tektronix, Harpenden on the 5 February 1979 and is Secretary to Alan Hutley the Publicity Manager and Co-Editor of *Tek Times*.

Liberation

I'm so glad that I've been liberated,
That at last I stand equal with men,
Though I haven't quite grasped the advantage,
What with washing, and cooking,
and then —
There's the housework, the children,
the sewing,
The shopping, the menus to plan,
When I just get the time, I daresay
I'll rejoice
In the fact that I'm equal to man.
I've lifted and carried, I've dragged
and tugged,
Kept the house in repair to the letter,
But then, I was one of the weaker
sex,
How could I know any better?
But now that we're all on the level,
My life should be easy, no strain,
Just eight hours a day, and two tea
breaks,
Oh! it's nice to be set free again.
Though there may be some snags to
this ruling,
Things are bound to go wrong now
and then,
Because some are more equal than
others,
And we all know who they are — the
men!

A. W. Hobson

The early days — 1963/1964

It all began for me in May, 1963, when I was offered and accepted the assignment of setting up Tek. U.K., and operating the new set-up from January 1st, 1964.

What a marvellous opportunity to start from scratch in the knowledge of past successes and failures and do's and don'ts! Such a creative opportunity to put together a complete operating unit to take over a well-established business position comes but rarely to any of us.

I had known Tektronix products, people and policies for over five years whilst at Livingston Laboratories Limited — indeed, I first met our President, Earl Wantland, in 1959 when he came to Europe to join the Guernsey manufacturing unit, and later to set up the Heerenveen factory.

In the '50's Livingston were exclusive representatives in U.K. for many U.S. electronic instrument manufacturers, including Tek and Hewlett-Packard and this continued into the early '60's, when Tek and H.P. set up their own U.K. organisations, leaving many smaller companies still under the Livingston banner.

It was necessary to obtain a complete briefing on current Tek policies, outlooks, and methods before setting to work on my new assignment and I spent time in Guernsey and Beaverton for this purpose during June and July of 1963.

The first step was to decide on the area to be the base of the new operation: I lived at Wheathampstead at the time, and in later days, when asked "Why Harpenden?" I usually gave my local residence as the reason. Jokingly, of course!

Well, only partly joking!

Looking at the parameters of the business, it became clear that there was no better location than mid-Hertfordshire. Some 60% of our business came from the area within a 40 mile radius of Central London. It made little sense to be in Central London with all the problems of cost, congestion, and working surroundings.

It made even less sense to be south of the Thames because of the need to cross or circumvent London on the way to the rest of the country. Therefore, the area north of London was the obvious choice, and the chosen area was on the A6 close to the M1, close to the A1, and on a main railway line to the Midlands and the North with excellent commuter services to and from London.

We had access to every corner of the country except Kent and Surrey without crossing London and yet were very conveniently close to the Metropolis.

I put all these points to Don Alvey and Frank Doyle, and they agreed, subject to the finding of suitable premises.

At the time, the office and shop complex in Station Road and Station Approach, Harpenden, was nearing completion, and after negotiations with the owner, we agreed terms for a 21 year lease at a rent less than half that for Outer London, to a quarter of the going rate for Central London.

The office building of 8,600 sq. ft. was on 3 floors of 2,200, 3,200 and 3,200 square feet, with a loading area under cover below the lowest working floor. There was parking for 20 cars, some under cover, and all in all, the premises were very suitable to meet our needs apart from the need to have a goods lift from the loading area to the lower two floors of the building.

This feature was part of the deal, and was due to be installed in good time before our opening date.

The next step was to start fitting out the two lower floors (all we needed initially) and starting our recruiting campaign. Incidentally, we were fortunate to let the top floor to Roses' (Lime juice!) for a year and thus help with initial costs.

Our first recruitment need was for Field Engineers and Field Support Engineers, as training would be needed over as long a period as possible.

Fortunately, three engineers currently based in Guernsey (John Thompson, John Bailey and Alan Clark) applied to transfer to Tek. U.K., and this was agreed on all sides. Just as fortunately, former colleagues of mine (Bob Garrett, Keith Retallick, Paul Smith, and Alan Hodgetts) also applied to join and by September we had our Technical nucleus earmarked and ready to go, including two new recruits (Chris Morgan, ex. Marconi, and Len Crouch, ex. Cossor).

Training sessions were laid on in Guernsey during the Autumn, in preparation for the magic date of January 1st 1964.

Meanwhile partitions were being erected, and preparations went on for the goods lift and the telephone P.B.X. system and telex service.

A planning application to use part of the building for servicing was lodged, and we had every assistance from the local Authority in this matter.

Going back a little, there was a time in August, 1963 when the local effort consisted of myself and Bob Garrett, two chairs and one table and a filing cabinet in a corner of the otherwise empty building! Oh yes, we had one telephone line, and part time secretarial assistance from a young lady working at home.

One continuous activity which went on when other distractions permitted was the preparation of a complete set of operating systems and procedures to cover such things as Order Processing, invoicing, accounting and reporting, staff policies, security arrangements,

stores systems for main products and parts, despatch, Import Duty and 'Duty Free' arrangements, and so on.

This activity naturally included the design of stationery, business forms, record cards, order acknowledgements and invoices, etc., and these were ordered from the printers in good time to make our opening date.

Our past experience had given us knowledge of office systems that worked well: some which just worked; and others which didn't do the job at all!

We had the experience of modifying the not-so-good ones and seeing if they worked better. Often, they didn't, and we were back at the drawing board. All this gave us a good position to set some new ideas into operation, and this part of the preparation was most absorbing and interesting because we could start from scratch with no need to do other than benefit from past experiences.

Certainly, in the light of later events, the arrangements eventually worked well, though of course, no set of procedures and systems can endure for long without constant monitoring and the need for changes brought about by changing circumstances and, often, changes found necessary to simplify as our work-load grew even larger.

One policy we were keen to try was to deliver all or almost all, by our own Vans, and use this network to collect instruments for repair and recall + re-delivery when the work was done. So far as we knew, no other company in our field did this at that time, which provided an alternative answer to the customer asking for service on site.

This could not be done immediately, as part of our arrangement with Livingston during 1964, Livingston would import, check and deliver to our instructions, and also that all service (warranty or chargeable) would be done by Livingston over that same period.

Of course, our Field Engineers were free to carry out first aid service when the need arose during their daily round, but always on a non-chargeable basis.

Other features of our arrangement with Livingston were that any orders reaching Harpenden in 1963 were to be handed to Livingston for execution; that during 1964 customers were free to buy either from Tek U.K. or Livingston; and that Tek U.K. and Livingston would use the Livingston mailing list to announce the new arrangements in the weeks immediately before January 1st 1964. The charges were also announced in advertisements in the technical press.

All this meant that we had plenty of time during 1964 to plan our own Servicing and Repair facility, our

own importing arrangements, and our own delivery van service to commence on January 1st 1965.

So much for the interim arrangements!

Two further and very welcome recruits from Tek Guernsey were Birgit Thompson (Yes, John's wife!) and Brian Staples. Birgit was to take responsibility for Order Processing, having worked on this both in Zug and Guernsey, and Brian to take charge initially of our spare parts stores, having worked in a similar sphere in Guernsey. Brian was also briefed to take on Transport arrangements as time went on.

One of the problems we had that Autumn, was the noise, dirt and disturbance caused by cutting holes in the floors to make way for the goods lift.

This gave rise to a legend that I habitually interviewed "Young lady" applicants for employment in the privacy of my car!

I claim I was a fugitive from pneumatic drills, and I stick to my story.

Recruitment of Office and Stores staff went ahead well, and we started with our planned complement and a list of reserves for later.

The mailing shots and advertising programme were planned and executed; areas for our Field Engineers were planned and defined and customer cards prepared; here we had a great advantage in that all our four initial Field Engineers had operated in the areas allocated to them before joining us.

Keith Retallick took Southern England, North of the Thames; Len Crouch South of the Thames, Alan Hodgetts the Midlands, and Paul Smith the North and Scotland.

John Thompson was our Staff Engineer, whilst John Bailey and Alan Clark looked after Field Support. Chris Morgan was earmarked as Supervisor of our Repair Centre when set up, and until then, he worked with Field Support.

Other planning activities during Autumn 1963 included the selection and ordering of demos; ordering of Field Repair kits and operating manuals; Ordering typewriters and other office equipment including copier, filing cabinets, desks and chairs; ordering estate cars for the Field Engineers, and all those other items, large and small, needed to equip our growing organisation.

We also had to decide on our Publicity and Exhibition plans for 1963 and 1964, a most important feature of our marketing plans.

My partner in all this was Bob Garrett, nominated to take responsibility for all technical aspects as Field Engineering Manager.

He would be the first to agree that much of his attention during those build-up months had to be devoted to things other than Engineering!

So, in the last few weeks of 1963,

things were coming together and preparations for the great day were well in hand and on time.

We had greatly enjoyed the planning of operational systems and procedures to our own satisfaction. The only immovables were the need to operate Accounting to mesh in with Beaverton systems, to report financial details in set form each operating period, and an obligation to operate personnel terms, conditions and benefits in direct line with the worldwide practices of Tektronix Inc.

On January 1st, 1964 we were all ready to open the shop.

27 employees were there on that day, and five of them, Bob Garrett, Keith Retallick, Paul Smith, Brian Staples and John Thompson are still with Tek U.K.

On that day we received our first two orders — one from Hughes International at Glenrothes for a 575 Transistor Curve Tracer, and one from B.T.R. Limited at Taplow for a 545A Oscilloscope and a CA plug-in.

These first of the very many were welcomed by all 27 members of the staff and provided the first practical test of our Order Processing, Invoicing and Despatching systems!

Now was the time when the policies and plans had to work and work well.

A cardinal feature of all recruiting activities was to stress that this was a Sales Organisation of the leading

Company of its kind in the world and we had a very great deal to do to live up to the standard of the equipment we were selling.

Everyone was requested to be a real salesman (sales person?) for Tek U.K., and although this was obviously true of Field Engineers and Field Support, it could be just as true for all those having any kind of contact with our customers.

The Telephonist/Receptionist was often the first direct contact for a customer or prospective customer, and here we always had a first-class service, often the subject of customer compliments.

It is just as important for all in Order Processing, Stores, Accounting and Publicity, and all our van drivers were particularly briefed on the importance of their impact on our customers.

In all these activities, the speed, efficiency, enthusiasm, and customer-consciousness displayed by Tek people could make new customers and cultivate established customers. I think we were very fortunate throughout my time in Tek U.K. to be able to recruit people who understood this reasoning and acted upon it.

What more is there to be said about the beginning?

Certainly, I found the first 18 months from May '63 to Dec '64 to be the most interesting, exciting and rewarding period of my business life. Of course, there was great in-

terest and satisfaction over the years beyond 1964, but nothing quite touched the creative satisfaction of that first year and a half.

In 1964, our first target was to make contact in every way open to us with as many customers and potential customers as possible.

This covered calls, telephone contact, Publicity and mailing and by holding an Open House week which was very successful.

We had one special target never achieved by Livingston to sell quantities of 'scopes to the British Armed Forces, and we started on what turned out to be a long road before we received our first contract for 647.

Next, we had to plan and prepare for our Repair and Servicing Operation. Although the official date for opening was January 1st 1965, we set up a small unit for warranty work from the middle of 1964 and expanded it gradually to cope with full-scale activity in 1965. If my memory serves me right, Vernon Foster was one of the first to join the embryo unit.

Another project to be planned was the collection and delivery service mentioned earlier, and yet another to plan a glossy brochure on Tek worldwide in general and Tek U.K. in particular. The reasoning behind this was that customers in U.K. knew Tek products well, but knew little about the Company itself. We also wanted to stress the "U.K." part of our name by claiming to of-

fer "British Made" in the island of Guernsey.

In those days, and perhaps even today, there was a resistance to buying foreign electronic equipment, and this was particularly true of Governmental and Forces procurement agencies.

The booklet eventually appeared, under the title "Tek in a Nutshell", and I don't doubt copies are still around in the hands of those employed at the time. I certainly have my copy, which I treasure.

At the end of 1964, Rose's moved out of the top floor of Beaverton House, the offices moved into the vacant space to leave the middle floor free for the Repair Centre, the Dem. Room, and the Conference Room.

And so, I come to the end of my tale of the beginnings of Tek U.K.

Now, 15 years later, it is a new generation of Tek people carrying on the ever increasing volume of business, on an entirely larger scale than in the early days.

The enthusiasm, the excitement, and the high level effort from the founder members of Tek U.K. was marvellous to see, and from what I saw recently at the Torquay meeting, those attributes are there in the present day team, and there in very good measure.

May the successes of 1963 and 1978 be only the precursors of much greater successes in the years ahead!

Harry Sellers, retired

High Fidelity: a simple explanation

A recording studio transfers a live performance onto a vinyl disc and a hi-fi system reverses the process.

This is the first of four articles which describe, in simple terms, the basic elements of a hi-fi system. It is intended as interesting reading for those who enjoy the end result but would like to know a little of how it is achieved.

The four articles cover:

- (1) pick-up, arm and turntable;
- (2) amplifier, tuner and receiver;
- (3) tape decks, reel-to-reel and cassette;
- (4) speakers.

Part (1) Pick-up, arm and turntable

At the recording studio the live material is changed from sound pressure waves (voice and music) into minute electrical signals by a microphone (usually many, each one tailored to a specific type of sound). The output from each microphone is fed into a multi-track tape recorder. From here, the recorded performance can be played back, again and again, via a "mixing desk" onto another tape recorder as a final composite recording. The mixing desk

allows each separately recorded passage to be adjusted in volume and tonal quality so that when they are "mixed" together the overall sound has the desired effect. This process is called "mixdown" and produces a final recording which is eventually transferred to a vinyl disc where each series of electrical signals is represented by wiggles in a spiral groove. The first stage in the reconstruction chain begins with the record desk assembly.

(a) Pick-up

To extract the information contained in the spiral groove, a fine probe is lowered gently, with the correct forces, into the groove. The probe matches the shape of the original cutting head and is housed in a probe body (cartridge) which contains the electromechanical elements which change the resulting wiggles, from the probe, into electrical signals. Clearly, the "cartridge assembly" has to be supported and before signals are produced the groove has to move past the probe: i.e. the record is rotated.

The cartridge is supported by an arm

and record rotation is provided by a turntable. Stereo (two-channel) pick-ups, extract two separate recorded passages from the groove.

(b) Arm

The cartridge is a delicate device requiring careful handling to ensure the best results. The supporting arm, therefore, must provide the recommended position and forces in relation to the record groove. High quality cartridges require very small operating forces, a gramme or less in some cases, and any unexpected friction in the arm mechanics can render the cartridge almost useless.

(c) Turntable

Rotating an inoffensive "plastic disc" is, seemingly, a simple task: a flat plate with centre spindle and a motor, suitably coupled and rotating at the correct speed is all that is necessary. Fine in theory, but not quite so easy in practice. Having gone to the trouble of building a sensitive cartridge and very attentive arm, the slightest imperfections in the turntable mechanism will be easily noticed. There are two basic requirements of a good quality turntable:

1. Precision tolerances for the main centre spindle/bearing. Any "slop" here produces deep sounding rumbling noises.
2. Constant speed: high stability for both long and short-time intervals is essential. Short-

term fluctuations, called "flutter" happen within fractions of a second and produce an annoying sound like trying to whistle a constant note whilst perched on top of a pneumatic drill. Long-term fluctuations, called "wow", happen over a period of several seconds and give rise to a see-sawing effect. Actual speed, regardless of the latter effects, is vital if the correct pitch of original recording is to be reproduced.

With the basic elements thus described, all that remains is to house them in something. Apart from being attractive, the housing must provide isolation from its surroundings; both acoustic and mechanical. Poor acoustic isolation becomes a problem if recordings are played at high volume. The amplified sound reaches the pick-up and is returned to the amplifier to be further amplified. This leads to an escalating effect known as "positive feedback". This can be violently destructive, especially to speakers. Poor mechanical isolation shows up as groove jumping when someone walks across the floor or bangs an adjacent cupboard etc.

Our basic elements can be purchased in various combinations depending on manufacturer. Some provide complete (integrated) units attract-

continued on page 8

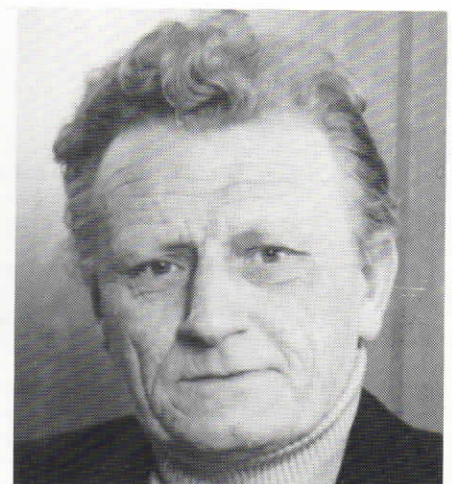
Spot Your Area



BETTY HOUPT joined the Company on the 1 February 1971. Betty is Secretary to John Shafe at Southgate.



DAVID KNUTH joined the Company on the 17 January 1972. David is costing Supervisor in the Account Department at Southgate.



FRED BONNER joined the Company on the 27 January 1969. Fred is a Foreman in the Facilities Department at Southgate.



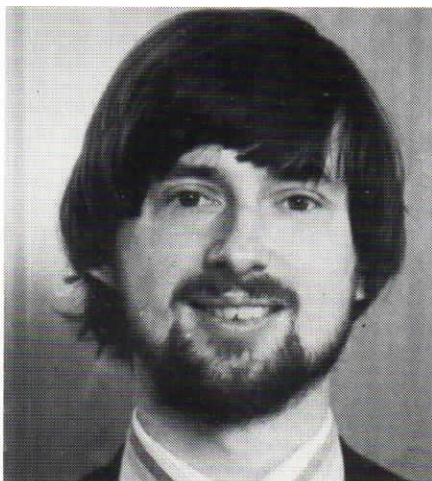
JULIE FRY joined the Company on the 12 February 1973. Julie is a Wirer Solderer in the Production Department at Hoddesdon.



JOAN SIMMONS joined the Company on the 12 June 1972. Joan is a Wirer Solderer in the Production Department at Hoddesdon.



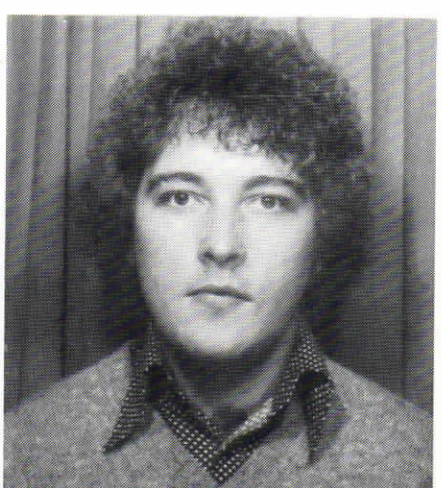
SYLVIA JAMES joined the Company on the 1 June 1970. Sylvia is an Inspector in the Production Department at Hoddesdon.



PETER HOLNESS joined the Company on the 17 January 1977. Peter is a Staff Engineer in the Manufacturing Services Department at Southgate.



CHRIS BRIGHT joined the Company on the 20 August 1973. Chris is a Test Gear Technician in the Quality Assurance Department at Hoddesdon.



ROY SHARPLES joined the Company on the 19 November 1973. Roy is a Service Engineer in the Test and Measurement Service Department at Manchester.

Representative



JOE PHILLIPS joined the Company on the 27 November 1978. Joe is a Repair Hand in the Production Department at Southgate.



JOHN FOSKETT joined the Company on the 30 January 1978. John is a Fault Finder in the Test Department at Southgate.



ROBERT FARMER joined the Company on the 24th January, 1977. Robert is a programmer in the Systems Department at Southgate.



ERICA GUIEN joined the Company on the 28 February 1977. Erica is a Wire Cutter in the Production Department at Hoddesdon.



EDDIE PILKINGTON joined the Company on the 23 October 1972. Eddie is a Tester in the Test Department at Hoddesdon.



BOB WATLER joined the Company on the 23 June 1975. Bob is a Storeman in the Distribution Department at Harpenden.



BRIAN ELLISON joined the Company on the 14 September 1964. Brian is a Technical Support Manager in the Special Products Group at Harpenden.



ROLAND WHITE joined the Company on the 25 January 1965. Roland is a Product Service Engineer in the Service Department at Harpenden.



JENNY SEAMAN joined the Company the 7 August 1978. Jenny is a Field Secretary in the Information Display Group at Harpenden.

PUPS

Part 2 Shaggy Dog Story

By John Burrows Goods Inspection Hoddesdon.

Pups, or should we start before Pups! I think it is best to start at the beginning.

Having the bitch mated the pregnancy period is 63 days. During this time extra care and feeding is required and normal exercise is the rule. She will tell you towards the end of her time when she requires less exercise.

The signs to look for towards 60 days, are a lowering of her temperature, not a rise, as in humans and then 24 hours before the pups are due she will refuse her food and will become restless; as some kind of guide, if she was mated before mid-day the pups will be born during the daylight hours, again if she was mated after mid-day, the pups will be born after dark, this however, is only a very rough guide, but, does help you prepare for the event of getting whelping box and plenty of newspaper etc. ready.

Pups are not carried like human babies in a single womb, but in "sausage skin" like tubes along each side of the bitch internally, well up into the rib cage, each pup of course attached to an umbilical cord as any other baby is, and of course cushioned in fluid to act as a shock absorber.

Toward the end of the pregnancy they turn and face "aft", as they are born head first like all babies. If they fail to turn, this could mean a breach birth, to which it may need Vets at-

tention. However, assuming everyone has now turned and are ready for the "off" the next step is up to "mother" she is now fairly restless, asking very frequently for trots into the garden. At this stage she is not quite sure what she wants, but soon succumbs to the action of labour, she may have a practice "run" at this however; most times she will simply push once and the first pup is born, they are born with a membrane cowl over their heads and therefore, cannot breathe until this is broken, we are always at hand to remove this quickly should the mother fail to do so.

Having seen number one into the world he or she is now removed from the mother and placed in a box with blankets and a hot water bottle (my it's a dogs life this), as pups do not require feed for at least two hours after they are born, only warmth.

We now sit back and wait for the next arrival, at this point we usually have a "quick one" to help wet the new families head (I do like this pupping) they arrive now at regular intervals of between twenty minutes and half an hour, bearing in mind that pups up in the rib cage need a little more effort and takes a little longer to reach God's fresh air. They are all treated alike and soon as the mother has cleaned them, into the hot box they go, until all are safely delivered, and a clean bed is arranged for the nursing mother. Then the pups are introduced to the milk bar, but for the next twenty four hours they only receive fluid until mother's milk starts to flow, there is nothing more to do now except feed mother and check now and then to see that she is not laying on them, she now

feeds for a month to six weeks at approximately two hour intervals.

At this early stage warmth is very essential and as a dog's normal temperature is 104° pups can safely be kept at around 75° without them feeling too hot. At four days old this breed have their tails docked (cut short) and their dew claws removed. The tail docking is not a "must" but it can save the dog in later life a lot of pain, A Cocker Spaniel by nature is a very merry little animal and wags profusely and if their tails are long they can injure them and this is very painful to this breed. From a sporting angle tails get caught up in brambles and the like and prevents, the animal from retrieving game. So tails are cut short, not painful at this stage.

Dew claws are removed because these are dangerous to the animal, and its owners in later life, a dog can bleed to death if an injury occurs here, because of the claw. As pups progress their little claws are cut to prevent scratching their mother when feeding, this happens about every two weeks.

At three weeks pups are started on solids and are gradually weaned from their mother whose milk soon starts to lessen. When they are fully weaned, mother very seldom visits the kennel and when she does it's only to look and pass the time of day. Cocker pups need raw beef mince, cereal, dry brown bread and calcium for these first months of life until they become adult animals at nine months old.

Pups at a very early stage can be trained to be clean, we put them out of their beds at feeding time on to old newspaper from three weeks old, until they learn to do this

themselves, which usually takes a couple of weeks, they learn then to have a dry bed and these habits stick for all time. We also leave the radio on in the kennel to get them used to human voices, we have proved that this helps in later training to traffic, gun noise and voice control.

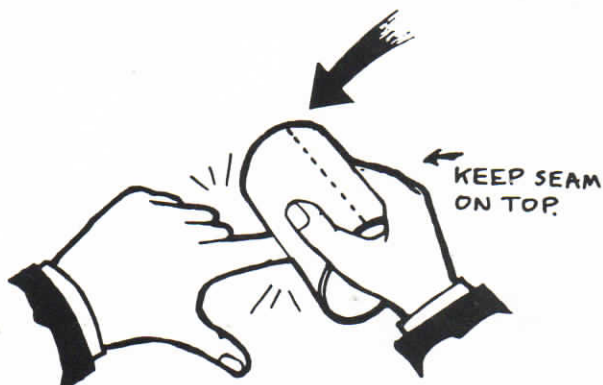
Suitable names are given to all the pups at this stage but, of course, these names are their official titles and not for their pet names. They have to be applied for through the Kennel Club who has the right to refuse any name that is unsuitable or infringes their strict regulations, we may have been lucky, but to date we have never had a name refused. This name now is entered on the pups' Pedigree and will be used each time it's entered in a dog show, it is its official title and no other dog may be called by this name.

Finally, the pups leave our Kennel for their new homes, maybe abroad or within the country. At the age of ten to twelve weeks old they soon settle in with their new owners, it usually takes four days to a week to get accustomed to their new surroundings, voices and habits, but pups' memories are only about four days at this stage and they soon forget old smells and noises and get busy learning new ones.

Pups should be inoculated at three months against Distemper, Hard pad and Hepatitis, the Vet will advise on this, and no pup should ever be taken out for walks until this has been done and ideally a further ten days should pass after the pup is inoculated before walks begin and then only about ten minutes a day for the first few months.

More about pups, next issue. Cheers.

Bean Can Smash



Effect — obtain a can of drink or soup, lay your finger onto a table. Then to everyone's surprise smash the can onto your finger.

Secret — it takes a little courage plus a couple of don'ts.

1 Hold can as in the diagram keeping the soldered seam **uppermost** (or you will hurt your finger).

2 Place your finger onto a **solid** surface.

3 Then smash the can onto your finger making contact with the centre of the wall of the can, producing a large dent in the wall. Almost any can can be used, bean, soup, fruit drink etc. but **not** cans containing solids i.e. corned beef, dog food etc. I can assure you it does not hurt. Warning — please do not perform this in front of children as they may copy and hurt themselves as they may do it the wrong way.

Puzzle

Each number between 0 and 9 appears.

No. 1 appears 10 times, No. 9 only once.

	DEF GH
ABC	EDEHFFE
	FHJ
	AKEH
	AACE
	AADE
	AJ KK
	AHDF
	AHAB
	BHE
	BHE

Tektopics

In a Word

You will all be familiar with the trade name TELEQUIPMENT but did you know that there are over 100 words of 4 letters or more and better than 135 if 3 letter words are included. Try it and see. No letter may be used twice and hide the dictionary!

Rating 120+ excellent
100+ very good
80+ fair
less than 70 — look for the dictionary.

Ron Johnson, Test Dept., Hoddesdon

Oscilloscope Words

We must congratulate Denise Green — Production Support for coming up with a total of 85 words made from 'Oscilloscope'. I know, I've seen them and counted them! Denise assures us that they are all to be

found in the Concise Oxford Dictionary. Some of the lesser known words were for example COSEC, OLEIC, SECCO, SPILE, PLISSE etc. Her eight letter word was CESSPOOL!

Tektopics

“100 NOT OUT”

No, Nothing to do with cricket, but this year, 1979, is a special year for one of the oldest Football Clubs in Hertfordshire. HODDESSTON TOWN FOOTBALL CLUB celebrate their Centenary. The main celebrations will be over the Easter week-end with a dance on Easter Saturday and a special match on Easter Sunday. However, more about that later.

nian League was achieved. At the time of leaving the Spartan League, the Club was the longest serving member.

Hoddesdon Town is the second oldest Club in the County, (Hitchin Town was formed in 1865), and when the County Senior Cup competition was instituted, in 1886, the Club figured in the first four finals, winning on three occasions:



The Hoddesdon Town Team of 1899

The Hoddesdon Club was formed in 1879 and their ground was at Mancer's Field, Essex Road, which is now the site of a modern junior school. In 1889 the Club moved to Lowfield, their present ground, which formed part of the estate belonging to the Barclay family. This estate was acquired by the Local Council (the old Hoddesdon U.D.C., now Broxbourne Borough) in 1924 and Lowfield was covenanted for the sole use of the Football and Cricket Clubs; the remainder of the estate now forms Barclay Park.

In the early days, the Club competed in the East Herts League and Herts County League before securing election to the Spartan League in 1925, in which League it remained until 1977 when election to the Athe-

In 1886/87 beat Watford 5-2, in 1887/88 beat Watford 4-3, in 1888/89 lost to Watford 0-2 and 1889/90 beat St. Albans 5-0 in a replay after drawing 3-3. (Watford were invited to play a friendly this year as part of the centenary celebrations, they declined — possibly worried after the previous results?). During their years in the Spartan League Hoddesdon were champions three times, League Challenge Cup winners twice and runners up in both competitions many times.

The main highlights in a history of mixed fortunes are:

1966/67 reached the first round proper of the F.A. Amateur Cup. 1970/71 Spartan League Champions, League Cup win-

ners, and Herts Charity Shield winners. These honours were achieved without a single booking, caution or other offence being recorded against the Club. In celebration a motor cavalcade through the town with an open top bus was made, followed by a reception at the Council offices.

7th March 1973 — the Club's floodlights were officially brought into use when West Ham United sent a team to help the celebrations. Hoddesdon lost 3-1, but the 3,500 spectators (a capacity crowd) thoroughly enjoyed a good game.

League:

Micky Droy (Chelsea)

Peter Cruse (signed by Arsenal)

Bryn Key (Crystal Palace)

and this season three of our first team have played for Cambridge United in the mid-week League, as well as being watched by 'scouts' from Crystal Palace, Q.P.R. and Manchester United.

Well, back to the present, as I said, the main centenary celebrations are at Easter with a dance at the Broxbourne Civic Hall on the Saturday (you are all welcome, tickets are £2 each) and on the Sunday the present Hoddesdon team will play the side which won the "VASE" at Wembley in 1975. We



1975 — Dick Sedgwick with the proud 'VASE'

19th April 1975 — this day must rank as the most important in the Club's 100 years. Winning the F.A. Challenge Vase at Wembley, before a crowd of about 12,000. Some 5,000 supporters from Hoddesdon made the journey to Wembley on that Saturday and, believe me, they were not disappointed. The "VASE" was proudly carried on the roof of a car, through the streets of Hoddesdon. The centre of the town was packed as the cavalcade of players and officials returned from Wembley — a day I will never forget. A civic reception was held on the Sunday to round off a really proud achievement for the Club.

Since 1970 three ex-Hoddesdon players have made the Football

hope to recapture some of the memories of that great day.

How did I get involved with the Club? In 1969 I moved from North London to Hoddesdon and I regularly travelled to watch the "Spurs". I began to tire of the journey and decided to support the local town side. In 1973 the Chairman was asking for supporters willing to help in the running of the Club and I thought that, as I was fairly new to the town, it may be a way of meeting local people. This has certainly proved to be true and I now have many friends in the town.

Incidentally, if you ever feel like coming to see the Hoddesdon Club play, you will be very welcome. Come and introduce yourselves and enjoy a pint with a very proud club.

Andrew Hartwell,
Cost Accountant/Southgate



The Hoddesdon Town Team of 1932-33 — Winners of The Perry Cup

The Mini Chef Column

We feature in this edition a selection of tried and trusted recipes.

We are assured by our gourmets at the Hoddesdon location that they are all inexpensive and easy to

prepare dishes, so quick march into the kitchen.

You may well find that they could be included in your menu of family favourites.

LEMON REFRIGERATOR CAKE

- 1 Packet of trifle sponges
- 2 eggs (separated) whisk whites
- 3ozs Caster sugar
- 4ozs Butter
- 2 Lemons

METHOD

Line bottom and sides of a loaf tin with foil. Cut sponge cakes lengthwise. Line bottom and sides of tin with sponge cakes. Whisk sugar and egg yolks, beat in butter. Fold in grated lemon rind and lemon juice gradually. Add egg whites. Put half of mixture on to sponge. Cover with further layer of sponge. Put rest of mixture in, cover with final layer of sponges. Cover with foil. Press down slightly. Put in fridge overnight. Decorate with whipped cream when ready to use. This freezes very well. Decorate when de-frosted.

Barbara Higgins,
Cashier,
Southgate

RASPBERRY SURPRISE

- 1 raspberry jelly
- tin of raspberries
- whites of 2 eggs.

METHOD

Drain raspberries and put into a pudding basin. Make up jelly using 2 fluid ozs. of raspberry juice. Pour jelly onto raspberries, allow to cool. Beat egg whites until peaks appear, making sure jelly is cold but not set.

continued from page 3

ively housed with hinged "smokey grey" lids and adjustable feet. Others supply the same but with a choice of cartridge. Lastly, all the elements can be purchased separately and mounted as described. The merits of each can be debated at greater length, but avoiding undesired editorial comment, let's just mention some of the more acknowledged names.

Cartridges

A.D.C., Empire, Pickering, Shure.

Pick-up Arms

S.M.E., Transcriptors, Acos, Micro.

Turntables

Gale, Thorens, Linn-Sondek, Transcriptors.

Complete Units

Technics, Sony, Dual, Leak.

By careful assembly of electrical mechanical parts, we have produced a device whose sole purpose is to extract recorded information from disc into minute electrical signals. The next process is to amplify these signals. Next month we look at equipment to do this.

Ray Ganderton, Harpenden

Fold in egg whites then let jelly set. CHILL until serving.

Pearl Brinkley,
Production Supervisor
Hoddesdon

CHICKEN MEXICO

- 3-4lb (1kg) chicken
 - 1 1/2oz (40g) butter
 - 2 tbsp oil
 - 2 large onions
 - 1 green pepper
 - 7oz (175g) can tomatoes
 - 2 tbsp tomato purée
 - 1/2 pint chicken stock or stock and wine
 - 4oz (100g) sweetcorn
 - 4oz (100g) mushrooms
 - Finely chopped parsley
- Cooking time:— 1 1/2 hours
Oven:— 160°C, 325°F, Gas Mark 3.
Brown the chicken in butter and oil on all sides. Remove from fat and place in casserole. Fry onions, and pepper. Add tomatoes, tomato purée and the stock and wine. Pour over the chicken and cook in covered casserole in the oven for 1 1/4 hours. Allow chicken to cool in the juice, then carve and put on a serving dish and keep hot. Meanwhile heat the corn. Boil up the sauce until half reduced. Add Mushrooms and cook for a few minutes. Pour over chicken with parsley and sweet corn. Serve with rice.

(Ideal to make the day before and be really organized for your guests. Chicken is really best left overnight in sauce in fridge).

Mel Pearce
Product Control
Hoddesdon

Letters to the Editor's desk

Coded Message

Well done the Post Office for finding us.

This correspondence eventually found its way to us at the Manchester office after some considerable delay — lucky to have found us at all.

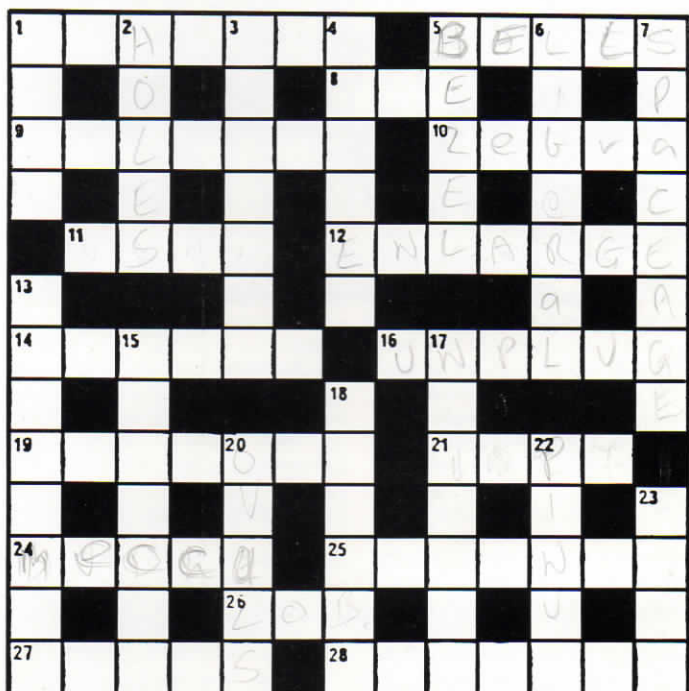


Dear Editor,

May I through your letter column congratulate Mr Ray Ganderton on his article "So You Want To Be A Salesman". His thoughts, his interpretation of the selling task, the content and composition of the contribution reflect an understanding and enthusiasm which is a credit to him and an inspiration to many of us.

May I further congratulate you, the editors and all contributors for making possible a magazine of this excellent quality.

Dave Fynn
Maidenhead



ACROSS

- 1 Arrangement of troops (7).
- 5 Eight indicates the end of four hour watch (5).
- 8 Alcoholic beverage (3).
- 9 Steadies the ship (7).
- 10 Striped African animal (5).
- 11 Italian wine (4).
- 12 Increase in size (7).
- 14 Quantity short of being a full vessel (6).
- 16 Remove the bung (6).
- 19 The merchant of Venice (7).
- 21 Listless person (4).
- 24 Vishnu is the most worshipped here (5).
- 25 The Virgin as seen in works of art (7).
- 26 Throw gently (3).
- 27 Determines in part the inheritance of certain qualities (5).
- 28 Back part of skull (7).

DOWN

- 1 Flows back (4).
- 2 Eighteen before reaching the club house (5).
- 3 Departing (7).
- 4 To find fault (6).
- 5 Rim for the graticule (5).

- 6 Most generous Mr. Gladstone (7).
- 7 Present day period of Human History (5-3).
- 13 Name given to war time collaborator (8).
- 15 Is spread on the surface (5-2).
- 17 Wandering (7).
- 18 With hand on hip (6).
- 20 Egg shapes (5).
- 22 Female picture for Barrack room adornment (3-2).
- 23 Manner of walking (4).

RESULT OF ISSUE 6

