

The Chairman's Notes

It is with regret that the Council received the Treasurer's resignation at our last meeting on Tuesday 9th March. Personally I would like to express my own thanks as well as the thanks of the Society for the enormous amount of work carried out on our behalf by Bernard. Without members like Bernard who are prepared to take an active part in running our Society it would cease to exist.

This set of notes is being delivered to our very excellent Editor at the last minute in order to appraise members of the decision taken, at today's (22 March) extra council meeting, concerning which one of two possible insurance packages we should use for our third party members' cover. We have made extensive enquiries of both providers and have made our choice solely on the policy we feel covers our particular needs best.

We have examined various types of additional cover in detail but have found no reason to add to our existing cover. Our new insurance-brokers are Footman James, representing the Southern Federation of Model Engineers. The Royal Sun Alliance Policy is specially designed for model engineering clubs and provides proper protection for all our member's activities.

On a final sad note, a long-term member John Shaw passed away on 10th February. John was an active member in the Arkley days and he and his sons were very much involved in the move to Tyttenhanger. On behalf of our Society I send our condolences to his family.

*John Squire
Chairman NLSME*

Treasurer Twittering

This is my last 'Twittering'. At the March Council meeting I decided to resign as Treasurer.

I must apologise for any temporary inconvenience to individual members and wish my successor an easy and pleasant sojourn in the post.

Bernard Lambert

Tyttenhanger Gazette by Roger Bell

The March Loco' Meeting was a 'Work in Progress' and Grahame A. was first to speak of his tender for his 5" gauge B17. The only drawings available were ones by Michael Breeze and showed the LNER group standard tender whereas Grahame required drawings for the Great Eastern pattern one. The nearest ones available were

for the Martin Evans ‘Claud’. Some full size engines were built by the North British Co and their works drawings went to Glasgow University and it was from there that a copy was obtained.

Having completed the tender he found a miss-match in height between the footplates; the loco was 8mm higher than the tender. Apparently the centre of buffer height for 5" gauge is 3 21/32" above the rail, so the loco springs were shortened by 3mm. The tender was raised 5mm by plugging and silver soldering the hole in the axleboxes, then reboring further down. Asked why he chose to build this particular loco Grahame reminisced of childhood in a small quiet village where little happened except for the passing of the B17s on the nearby line. This was the start of his interest in railways.

Adam G. had bought along a part of a diorama he is making based on a rural greeting card scene of two cottages and a barn in the shelter of a tree. It was built up on a flat sheet card as a base. The buildings were removable and stood on the base. The thickness of the ‘soil’ came up the sides of the buildings, which located them and avoided a sharp corner at the base of the buildings.

The scale was 2mm to the foot; it will have a simple ‘N’ gauge railway passing by. Plumber’s hemp was used to thatch the roof of the cottage the same way that it is applied in full size: it took ages to do. Much of the construction material can be made from everyday household waste, the packing from a new shirt was useful for windows. Many model shops sell the wide range of products from Woodland Scenics.

Artists’ watercolours were used, as they are light fast. The flowers were dabs of acrylic paint. The sagging rooflines have to be built in. The tree in the scene just slotted in like the houses, which made each item easier to get at. Adam spoke of his interest in building a 1/48-scale dolls’ house made with a high level of detail and not toy like. The candles in the windows actually flicker. It really was a superb diorama and displayed his skill as a former railway modeller.

The London and South Western D15 loco in gauge one was built by Bert M. from items he had in hand. The full size was built in 1912 and had a long smoke box to accommodate a grid of pipes that made do as a superheater; the proper superheater came later. The top of the links of the inside cylinder Walchaerts valve gear rather unusually came above the top of the frames. The model is a ‘Project’, a spirit fired single cylinder loco’.

The lamp brackets on each side of the smoke box were very small and typified Bert’s work. The lamp code was used to identify the route to passengers. The handrail knobs were made from split pins. The cab is removable: no soft solder has been used it’s all angle and bolted together. The wheel arrangement was 4-4-0 and only the rear-driving axle is sprung. Bert may not have it finished for running this season.

Peter B. was next to speak of his hot air engine, which was admired for his procurement of material. The displacement piston was made from two Coca-Cola cans with the tops cut off then slid inside each other. One does actually go inside the other even though they are the same size. The main body was a baked-bean-can (large size) with a small can on top to hold the cooling water.

The power piston was housed on the side of the can; this will be connected to a wooden connecting rod (redundant drawer runner) to a large wooden disc flywheel. All moving parts rotate on top quality roller races. Peter anticipates that despite the material cost saving, it will run quite well. During its construction Peter noticed the ingredients of Coca-Cola: phenylalanine was thought at the meeting to be a good laxative. Phosphoric acid is a good metal cleaner; story had it that a can was poured into the bores of a seized up diesel engine, after a while it turned over nicely.

The 3 ½" gauge Peppercorn A1 on the table up to rolling chassis stage was the work of Ron P. He had delayed building it trying to locate accurate wheel castings as the original supplier had ceased trading; Blackgates had bought their stock so were able to supply them. The drawings came from the National Railway Museum, which Ron redrew with all the frame and valve gear detail in full size.

It is a three cylinder loco'. One set of valve gear had been assembled to a board, which proved it worked. The trailing bogie has side control springs and working leaf springs. The boiler will be the same as the A4 and the loco' a little longer. The axleboxes are mild steel with phosphor bronze liners. There were 49 built of the full size and they would run 180,000 miles between services. They were capable of 100mph but did not ride as well as an A4.

Asked what equipment he uses to make such a fine loco' he replied a lathe and a small mill And how much time does he spend in his workshop? That day he started at 10am and finished at 4pm. Ron started this project in October and was asked if he kept a photographic record of its progress. A reply from the floor said 'no, he cannot get a fast enough film'.

Derek P. has been making the backhead cleading for his 5" gauge 'Black Five'. The fire hole doors were fitted after some rework due to a miss match between the firehole in the cleading and the firehole in the boiler. The copper was sandwiched between the wooden former and a wooden backing plate in the vice to eliminate distortion whilst forming.

Brian A. is also making the same loco' and has amicably outdone Derek a couple of times on attention to detail causing Derek to remake a part. Such is the detail that the platework ahead of the valve spindle actually hinges away forward for access. A hole has been cut as full size in the running boards above the footstep: this allows one to check ones foot is firmly on the step below.

The steps have a raised dome pattern as a tread, this is done by marking out on the underside to 0.093" pitch to an offset grid pattern and centre drilling to a depth 0.007" to 0.010" short of breaking through. A punch and die was made to form the dome in each already weakened hole. The drilling machine acts as a press to form the 1/16" dia. dome in the 18swg step. There were many dimples in each step and many steps. It takes ages to do but it looks superb.

Dave L. spoke of his attempts to build a propane-fired furnace for melting steel so that he can make lost wax castings. He had been successful in melting copper although it does give off dodgy fumes. He felt pleased that at least he was in the Bronze Age.

Experience from wider afield seems to show that it's better to make the mould and lost wax pattern oneself, and send that to a proper foundry.

Ian closed the meeting by thanking all, and said that he felt proud to be a member of our Society where people make things of such a varied nature and are prepared to talk about them for our entertainment and common benefit.

Spotlight on Jim Robson

Part Three

More Marconi Years

After some time in Calibration, having worked on several different types, the semiconductor was on the increase and I decided to do a C&G course on them to get a bit more knowledge. Once again I got lucky. We were developing the world's first solid state signal generator, the TF2002, and someone had been deputed to go and work with the design team so that they would have the necessary knowledge to run the line when it went into production. Just before commencing his secondment, the chap who had been chosen was urgently required to go to our factory in Madras, so they needed a substitute. "You are doing a semiconductor course aren't you Jim?" they said, I replied in the affirmative, not pointing out that I had only just started. "Off you go then" This chance changed my whole life at MI. November 1963. I found an entirely new world in design; no rush, no weekly quota, very relaxed. I also found Mike Crisp, who was part of the design team and found we had several things in common, one of which was model engineering.

They had already got 3 boxes, 'D-models'. These had been built and wired by the Model Shop and Development Wiring. One of my first jobs was to calibrate the 4th model from scratch under instruction using test methods already calculated from the other three. I took copious notes, not only of the methods but also any problems and the faultfinding that occurred. There was also a Test Methods department whose main function was to produce sales/product specifications and Test Schedules based on methods they had devised in conjunction with the designers. The head of that department had been deputed to the 2002 but due to pressure of work was unable to spend much time on that task. Once a month there was a progress meeting with representatives from all the various departments connected with the instrument to discuss progress and problems, which might have arisen. One of the concerns, which kept recurring, was that I was the only person who had totally calibrated a 2002 and they kept saying we really ought to have the test schedule completed in case I got run-over. I felt deeply touched by their concern for my welfare!

All too soon my period of secondment was over and I headed up the team selected to calibrate the first production batch. I should have been in my glory, not only was I in Calibration but a section leader as well. Trouble was that my sojourn in design had unsettled me, there was another world out there. I had often thought that the test schedules for the older instruments lacked info and that I could have improved them. Having written the schedule for the 2002, which was then taken off by the aforementioned head of that department for typing, under his name, he intimated that

should I feel like a change he would be pleased to welcome me to Test Methods department. However, I was committed to seeing the instrument thro' its first production run and it was some 18 months before I was able to transfer to Test Methods.

We had recently started a new system of documentation where the development stage, up to the trial batch in production was on green paper. (If we ran out of green paper we used white and rubber stamped each sheet 'GREEN') My first task in Test Methods was to update the various test schedules to white. As well as these complete instrument schedules there were separate schedules for the printed circuit boards (PCB's) to be pre-tested. This was not difficult since I had written the originals. The next job was a lot trickier, an AF Power Meter, an instrument with which I was not familiar and a difficult 'designer', not helped by new areas of circuitry and performance plus the fact that it was being designed initially for the Navy who were going to make sure that it conformed to its spec, which was ambitious to say the least! It was designated TF 2500 and I soon began to wish I was back in Calibration. I managed to stay the course and spent the next four years on test methods on a variety of instruments, mostly TV transmission testers for broadcast companies.

By this time I was getting restive again and a vacancy arose for the post of Product Research Officer. This entailed keeping track of all new and existing competitive products; their specs and prices, and comparing them with our own products. These details were passed on to sales and design departments and written up in a publication called 'Facing Facts' which was distributed to all UK sales reps and our agents overseas. There was also a companion booklet with all the price comparisons in original currency and sterling equivalent. (A mild form of industrial espionage).

To obtain spec and price information entailed contacting the companies concerned. Initially this was relatively easy since part of the test methods job entailed purchase of test equipment, our own where possible but from other companies in situations where we did not make a particular device or the opposition made a superior one. So for four years I had been a customer and info was readily forthcoming, but after a while they twigged that I had changed jobs and getting info, especially prices, became tricky. I soon found who my opposite numbers were and a bit of 'horse trading' went on. I also had recourse to genuine purchasing officers across GEC who represented a large percentage of competitors turnover. If a company would not give me a price on some piece of 'sensitive' equipment I could usually get it elsewhere. It was never boring. The only problem was the reverse of the competitors sheet in 'Facing Facts' which had two lists; 'Advantages of MI 123 compared to Bloggs 456 and vice versa. Ideally there should be more MI advantages than Bloggs. It had been stressed at my interview that I must be impartial, put myself in place of the customer. Unfortunately there were occasions where I preferred the opposition, even if they were dearer. Very difficult to make the pros and cons come out the way the sales dept wanted to see them, I became quite unpopular on occasion.

Quite often I had the opportunity to try competitive equipment 'hands-on'. We sometimes bought a piece of opposition gear to check it out, (as did our competitors). We had a signal generator TF 995 which was very popular, particularly with the military. A German company bought one, stripped it down and made an 'exact' copy but could not make it work. The 995 had always been a tricky beast to calibrate. The

same team built J (batch) after J for years, the same people doing the bit that they were good at. Ironically, the instrument having been discontinued for some time, the MOD pressured us to make some more and we couldn't make them work either! The old group were dragged back, kicking and screaming, and waved their wands, passed on their little tricks, (this time gladly) and all was well.

Another source of info was the purchasing appraisal unit at New St, Chelmsford, the original Marconi Company. They would be loaned instruments from various companies, including us, put them thro' their paces and write reports. Apart from getting copies of these reports I could always drive over to Chelmsford, have a play with competitors kit and have lunch in the staff restaurant which provided alcohol with your meal, very civilised. Halcyon days.

In addition to comparing competitors equipment I also had to compare their financial performance, to which end we got a copy of their annual reports. For those companies who did not issue a report I journeyed to 'Companies House' in City Rd, paid a small fee and took notes and photocopies. Once a year I did a 'Top Ten' report. Again I was unpopular because we were never on it! Ho hum. Then, since I obviously did not have enough to do, I was tasked with estimating market sizes in various countries. This meant visiting the DTI Export House, at that time No.50 Ludgate Hill. They had a library that contained almost every scrap of info available on imports and exports of every country. It also overlooked the line, which ran up to Blackfriars, which eventually became part of 'Thameslink'. In 1980 three things occurred; the start of recession, my secretary retired, and the Librarian left. "Got a brilliant idea Jim, why don't we combine the library with Product Research and call it Marketing Information!" You will be Manager - Marketing Information, (carrot). We had quite a large Technical Library, run by a qualified Librarian, who also was responsible for keeping all the relevant specs from BSI etc, etc, up to date; no small task. Luckily the outgoing Librarian had written a seven page "Idiots guide to the library" which proved invaluable.

The promised replacement secretary never materialised (what a surprise) and I struggled along until 1990 when we were having yet another round of redundancies and my current boss, (I reported to 10 different people between 1971 and 1993) said, "We are going to make either you or the chap in charge of Environmental Test redundant. You can either be made redundant or add Environmental Test to your empire at an increased salary and the title Manager - Information and Environmental Test Services". I did consider asking if I could have a broom suitably inserted in order to increase my work capacity but decided against it. The chap that I was being asked to replace had been at MI since he left school, was well known to me and lived close by; not an easy decision. "Can I have time to think about it?"

"Certainly, you have ten minutes. Go and have a coffee" All heart my boss.

I went down to enquire: "Don't be a mug - take the job" was the general consensus, including my wife who also worked there. I felt like a usurper when the chap came to see me and said he had been told to spend his remaining time teaching me how to do his job!

So that is how I spent the last three years, in charge of three departments, which had originally had seven personnel and was now down to me. The person in charge of Environmental Test had quite a responsible job. Suddenly I had signatory powers to say that instruments in various stages of mechanical design met required standards or not. Once I learned how to drive the equipment, and spell environmental, it wasn't too bad. It was certainly never boring. I had to mount instruments on a vibration table, driven by an elderly Savage 1kW valve amplifier, in every plane and do a search from 10 to 150 Hz looking for mechanical resonance using a stroboscope to locate the source when necessary. The instrument was then subjected to two hours at the worst resonance point in each plane, plus a further two hours swept between 10 and 150Hz. If it survived that, it was then given 500 20g bumps in each plane on a bump tester. I wore ear defenders for this one! In October 1990 I was moved to our new Stevenage site but since they could not move Environmental at that time I had to zoom between the two sites as required. It was definitely not boring. A little sideline was certification of all other departmental environmental devices annually, ovens, chambers, etc. The last three years of my 51years continuous employment were certainly hyperactive but they were really satisfying.

To be continued

More Forgotten Motorbikes

The interest shown by many members in the exercise of trying to remember the names of pre-war motorcycles has been very heartening. I've never had so many communications from members and no doubt in part it results from the fact that so many older members had their own motorbikes when they were young and have many happy memories. It is quite possible that we may run similar 'Jogging the Memory' stunts in the future on completely different topics: but more of that later.

For the present there have since last month been yet more suggestions of pre-war motorbike manufacturers. Frank Dell says that SOS was a pre-war maker and adds that the correct spelling of what I previously referred to as ZANDAPP and ZANDUPP is in fact ZUNDAP! Complicated isn't it?

Ron Price has come up with a name THAT must be a favourite with many, The HALESON – it was a steam motorcycle!

Mike Ruffell has added the following: AJW, AKD, THE AMERICAN BICYCLE CO, ACE MOTORCYCLES, ALLDAYS AND ONIONS, BATAVUS, BRADBURY, BUTLER PETROL-CYCLE, CURTIS, MONACH and RILEY. Mike also mentions that Ducati did not start to build complete motorcycles until 1950.

Mike Collingwood has submitted the following:

I claim no originality for the following suggestions as, without exception, they have all been researched. Firstly, Frank Hills kindly lent me a book of TT entrants and winners (see note below – Ed) from which I was staggered to learn that 170 different

makes of m/cs have entered the TT. I combed the list and offer the following 8, which at least rang a distant bell in my memory:

*COVENTRY VICTOR. D.M.W. HUSQVARNA. INVICTA. NEW GARRARD.
PUCH. S.O.S. and VINDEC.*

The following 6 have been taken from a video entitled "100 Years of Motor Cycling" which Beryl surprised me with, knowing this present pursuit and having seen it listed in a mail order catalogue - if anybody doubts their authenticity I've got 'em on tape!

HAZELWOOD. JES. LUBE. MOTOSOCOSH. ORMANDE and QUADRANT.

STOP PRESS! A hurried note hoping to make this month's News Sheet. Eight of us - all Society members - today paid a visit to the Brighton Engineerium and very interesting and enjoyable it was too. But in particular there we saw yet another ancient motor-bike unknown to any of us, so we offer this as a final contribution - a 1923 Vee-twin called a MARTINSYDE.

Peter Sheen, who was at one time Director General of the Motorcycle Industry, drew my attention to a book edited by Erwin Tragatsch that lists all motorcycles from pre- and post-war (there are 217 pre-war ones) which clearly shows that William Mason, Mike Collingwood *et al* were not the first to want to recall all those pre-war machines.

In view of the fact that we now know where to go for (presumably) definitive lists, I think we will leave it there. I have reproduced below our final tally. For those interested in pursuing the exercise further, the references to the two books mentioned are:

50 years of the TT History. By LR Higgins (revised by C Quantreil) 1956 pupl.
Shell/BP.

Illustrated Encyclopaedia of Motorcycles. Ed Tragatsch E. Publ: Temple Press 1983.
ISBN 0-600-38477-2. Both books should be available from your local library

Our Final List

ABC, ACME, ACE MOTORCYCLES, AJW, ALLDAYS AND ONIONS, AKD,
AJS, AMBASSADOR, AMERICAN BICYCLE COMPANY, ARIEL,
AUTOGLIDER, BAR & STROUD, BAT, BATAVUS, BRADBURY,
BEARDMORE, BMW, BSA, BELEPEDE, BENELLI, BLACKBOURNE (Should
this be BLACKBURNE?), BUTLER PETROL-CYCLE, BROUHH, CALTHORPE,
CENTAUR, CHATER-LEA, CLYNO, CONOUGHT, COTTON, COVENTRY
EAGLE, COVENTRY VICTOR, CYCLE-MASTER, CZ, DOT, DOUGLAS, DKW,
DMW, DREADNOUGHT, DUCATI, DUNNELT, EXCELSIOR FN, FRANCIS
BARNET, GILERA, GREEVES, HALESON, HARLEY DAVIDSON,
HAZELWOOD, HENDERSON, HRD, HUMBER, HUSQVARNA, INDIAN,
INVICTA, JAMES, JAWA, JES, LEVIS, MZ, LUBE, MARTINSYDE,
MATCHLESS, McKENZIE, MINERVA, MONARCH, MONOT GOYAN,
MONTGOMERY, MORINI, MOTO GUZZI, MOTOSOCOSH, M V AUGUSTA,

NER-A-CAR, NEW GARRARD, NEW HUDSON, NEW IMPERIAL, NLG,
NORMAN, NORTON, NSU, OEC, OFC, OHC, ORMANDE, OSS, O K SUPREME,
PANTHER, P&M, PEUGEOT, PREMIER, PUCH, RADCO, QUADRANT,
RALEIGH, REX, RILEY, ROVER, ROYAL ENFIELD, ROYAL RUBY, RUDGE,
SCOTT, SHEFFIELD, SINGER, SOS, SPRITE, SUNBEAM, TRIUMPH,
VELOCETTE, VELOPEDE, VINDEC WELBIKE, WILKINSON, WILLIAMSON,
WOLF, WOLSELY, WOOLLER, ZUNDAP, ZENITH.

The views expressed in this News Sheet are not necessarily
those of the Chairman or Council of the NLSME