



# MAIDSTONE MODEL ENGINEERING SOCIETY

## Autumn/Winter Newsletter 2011



*Just a few images of the year gone by...*

## **M.M.E.S. Lunch at Grange Moor Hotel on Sunday 15<sup>th</sup> January 2012**

*12.30 for 1.00 pm as usual // £19.50 pp (under 10's half price)  
Menu choices to Pat Riddles by December Club Night (2<sup>nd</sup>)*

### **Starters**

Fresh Homemade Cream of Vegetable Soup

or

Prawn & Cucumber Salad

In a Marie Rose Sauce

Served with Brown Bread & Butter

or

Trio of Melon

Fanned Honeydew Melon

Served with Water & Cantaloupe Melon, with a Blackcurrant compote

or

Deep Fried Breaded Brie With Almonds

Served with a Cumberland Coulis

### **Main Course**

Roast Sirloin of Beef with Yorkshire Pudding

or

Roast Leg of Lamb Served in a Red Wine & Mint Gravy

or

Turkey Served with chipolatas, Stuffing & Cranberry Sauce

**The above main courses are served with Roast Potatoes & Vegetables**

Smoked Haddock & Spring Onion Fish Cakes Served with Parsley Sauce, New Potatoes & Vegetables

or

Mediterranean Vegetable Melt Served on a bed of noodles & finished with Mozzarella Cheese

or

Cold Ham with Mixed Leaf Salad, Coleslaw & New Potatoes

### **Sweets**

Homemade Apple & Apricot Crumble Served with Custard

or

Selection of Kentish Farmhouse Ice Cream, Vanilla Pod, Strawberry, Chocolate, Honeycomb, Rum & Raisin

or

Mixed Berry Pavlova Meringue, topped with vanilla ice cream, mixed berries, whipped cream

or

Banana & Honeycomb Shortbread, Shortbread biscuit topped with honeycomb Ice cream, sliced banana, whipped cream & drizzled with butterscotch sauce

or

Selection of British Cheese & Biscuits with Chutney

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Coffee or Tea

## Andrew's Spot...

Well, firstly my apologies for not getting this newsletter out earlier. I had intended to get an issue out before the end of the running season, but it wasn't to be. A culmination of work, work, oh and more work getting in the way, not to mention an office move which left me unable to print anything; plus maybe some stronger arm twisting to get some articles from people in good time might be needed next time (Sue, any pointers on how you did this would be good... Hehe). I think I'm going to have to invest in a decent printer at home, you wouldn't think I worked for a professional printers, but there you go, enough of my moaning...

Having said that, thanks for those of you that have contributed for this edition, I've had quite a lot to fit in here, and even have a couple of bits in reserve for the next edition. So it wasn't so bad after all.

I'll keep my bit as short and sweet as I can this time, as there is a lot here for you to feast your eyes on. In short, we're almost through another year, with lots going on, including visits to other clubs, the charity run where we raised £400 for Parkinsons, our runs for the Mencap children, the Peter Roots Family and Friends day, not to mention our usual running days and Friday club nights.

I especially enjoyed the Mencap runs this year, despite one of the days being quite miserable (as seems to have been the norm for summer this year), we had a good turn out from our members, and the kids really seemed to enjoy themselves. I know quite a few of you that take part in this really enjoy these runs and are more than happy to devote your time to providing the children with a little bit of happiness, I know I do.

Many of you may have noticed that this past year we have had some problems with slippery rails, especially on hot days (and wet ones, too). Well thanks to Tom, he has devised a new track cleaning train utilising a tank on his flat wagon which drops the new water-based degreasing fluid (which we should be using on our engines) mixed with water on to the lines, and the following wagons then help to wash the grease off. After using this on a couple of occasions, there was a noticeable difference to the track with less instances of slipping and having to be pushed round by the following train—yes I was one of those that had to be pushed, I blame it on the old engine. No doubt we will be seeing this train out and about on the track more often.

As you will see from the menu enclosed, we are once again going to be having our annual dinner at the Grange Moor Hotel on Sunday 15th January 2012. If you are interested in coming again, could you please give your money and menu choices to Pat by the December club night. We have decided to give the hotel another chance, after this years disappointments, and Pat has done a great job of discussing this with the hotel on our behalf, and as a gesture of goodwill they have given us 4 complimentary places, which will be allocated on the day, so there is a chance you could win your lunch money back! It's always great to see so many of us gathered together, and look forward to seeing as many of you as can make it next year.

We have the AGM on the first Friday of March, and now is the time for anyone to have a think about anything you would like brought up at the meeting, or even if anyone would be interested in joining the committee, please let us know.

Well there you go, fairly short and sweet... You can expect the next edition around the start of spring time, where you will hear more from me. So it just remains for me to wish you all a pleasant end to 2011, Merry Christmas, Happy New Year and all that.

Til next time...

*Andrew*



Yours truly on a track cleaning turn—I really should smile more!



Congratulations go to Joan and Ken Linkins, who this year celebrated their 60th Wedding Anniversary. Here's to many more happy years together.



Now, here's a picture of Lochwood and former owner John Barrow—but does anyone recognise two of the passengers sitting behind him....? Hmm you only need to add a few years.

# Chairman's Spot

Well, here we are in the second newsletter of the year, and I can't help but wonder where all the time has gone.

Following Andrews mini biography last issue, I thought that I would follow suit and write a brief biography of my own life for those of you who may not know who I am, or not know much about me.

With dad being the secretary of the club, and a life long regular attendee of the club, it is somewhat unsurprising that I have followed in his engineering footsteps. I have been coming to the club on Sunday's for as long as I can remember, and have always tried to be as involved as I could, either filling the running locks with coal and water, or chopping wood ready for fire-lighting.

I remember driving a steam loco for the first time while we had a club visit to Sutton club while I was around the age of 7, which has lead to many years of pestering for drives.

When I turned 13, I had my first drive of a full-sized loco at the K&ESR, which developed into a love for the midland 3F, which I started to build a model of that year. From then on I could be found behind the regulator at every available opportunity. This being the time that I was old enough to join the club, I was finally able to become a member in my own right.

When I turned 16 dad gave me the speedy that he has owned for many years, and although it needed a few jobs to return it to the track after a good 10 years without a fire, this proved to be a very educational loco for me, providing many many miles of running, along with a couple of re-sprays.

It was around this time that I finished school after my A levels, and not knowing what direction I wanted to take with my life decided to enrol at college on an electronic engineering diploma. However this became evident that it was not my preferred way of life, since I was a mechanical man at heart. Also at that time I became a senior member of the club, and took the opportunity to join the committee at the age of 18.

Unfortunately my second year of college was also distracted by the long illness of Adrian, which was one of the lowest points in my life. He was a great man and a very close friend, and I felt privileged to have known him, and proud to be able to continue his memory as owner of the fantastic Enterprise tank engine that he built back in 1987.

I turned my education towards the marine industry, by studying for a marine engineering degree at university, aided by being able to work for the family business in the marine workshop at Gillingham Marina. The practical experience being gained helped me through my degree, despite the setback of losing my step-dad in the final year. During these years enterprise benefited from a new paint job returning it to the apple green that Adrian always preferred.

With the engine running so well, I decided to enter it in IMLEC (having been reported in a previous newsletter). I enjoyed the experience there, and fully intend to enter again when the time is right.

Following my degree, an opportunity arose to change jobs, and join the port of London authority, which is where I have now been working for the last 2 1/2 years.

Last year I was appointed vice-chairman by the committee, followed this year by being asked to take over as chair from Graham, an excellent chairman that I have a great respect for. This making me the youngest chairman in the history of our club.

During the last year I have had a lot happening away from work and the park, with buying my first house, moving away from dad and in with my girlfriend, who has since given birth to my beautiful daughter Emily, who is growing up faster than I can believe. Although she has not been able to escape from riding on the trains... Is she our youngest ever passenger having had her first ride at just 6 days old?

As for the last few months for the club...

I have been extremely happy to see so many of our faces on a weekly basis at the park, with the necessity for the club engines being used being a rarity due to the number of locos appearing on a regular basis, that said it would still be nice to see some more of you that have engines under the bench, surely nobody wants to see their hard work gather rust... Having said that, help is always keenly received for station duty, as it seems to be the same faces that we see on a regular basis.

As always I am extremely pleased that we have the devoted group of the Wednesday gang that continue to provide a sterling job of maintenance around the club site throughout the year. For example they have recently unblocked the soak away drains from the steaming bay area, and continuously working their way around the track maintaining the rail expansion joints and elevation, providing us with one of the best running lines that I have been able to run my loco on.

At the beginning of August we hosted the second Peter Roots memorial friends and family day, which has become a thoroughly enjoyable date in our calendar and this year was no different, with happy faces to be seen in every direction. I'm sure I don't only speak for myself when I say that I am already looking forward to next year.

It is always interesting to travel around to other clubs, and even more so when there is a group of us travelling around together, so it is especially pleasing when we are invited as a club for our own visit by the local clubs. This year we had a wonderful visit to Canvey Island in August, where several of us travelled to for the day, accompanied by many of our families for the day. Even though the weather didn't exactly hold out all day for us, it was a thoroughly enjoyable day for all, with two of our families comprising of three generations, these being the Hawkins, and my own family.

The other visit that we had to ourselves this year was to Beech Hurst. With this being a big anniversary year for them it was difficult for them to find a date to fit us in due to many other commitments that they had for themselves, so unfortunately we had to settle for a day at the beginning of October. However when the day arrived this day was the hottest October day on record, therefore we had a wonderful day in the sun. This is a beautiful track to visit and well worth the trip, with the only minor drawback being that we are required to passenger haul if possible, since they are under an obligation to public run every Saturday and Sunday throughout the summer months, although this isn't too much of an inconvenience since we are all used to that sort of running anyway.

It has also been extremely pleasing to see the attendance on the club nights, with some good evening runs, although it would sometimes be nice to see a few more engines running for fun into the night. As well as the runs, we have recently had a very interesting guest speaker from my own work, talking to us about the design that went into the new series of boats that are currently being put into service for the port of London. This proved to be extremely entertaining and was extremely well received by those who attended. If anybody would like to hear about a particular subject at a guest speaker night, or indeed know of anybody who could deliver such a talk then please let me know so that I can endeavour to provide you with something of interest to us all.

For now, we have a couple of running weeks left (as I write this although I don't know exactly when you will be reading it) followed by a long winter in which we have a couple of projects in the plan one of which especially may require help from all those who are able to assist. These are the kitchen and the clubhouse side of the steaming bays.

The intention of the committee is to approach some kitchen designers to give us the benefit of their experience to design a new kitchen area for the clubhouse, and depending on the quote that they give us we may even ask them to install for us. The second major job that we are thinking about is to renew the concrete in the steaming bays, since the surface has deteriorated on the clubhouse side of the steaming bays, leading to us having huge puddles on either side of the drain. The other side was renewed several years ago, so this a job that is long overdue, although it will be a lot of hard work digging down through the old concrete, then mixing the new. This will be done over the course of several weeks starting in the new year, although the hard work will be worth it in the long run.

For now, I'm sure you've had enough of reading my ramblings, so I'll sign off with the final thought that I look forward to seeing as many of you as possible in the coming weeks, not forgetting that we will be running on Boxing Day, which is always an amazing atmosphere for the day. And once again asking for help with the concrete in the New Year. If you're willing to volunteer your help then please let us know if we can contact you for your help.

Looking forward to seeing you all soon

TOM



## Boiler Testing

All boilers used at the club must have current hydraulic and steam test certificates. When presenting a boiler for test at Mote Park, please observe the following conditions:

Any new boiler or a boiler that does not have a certificate must be off the frames and must be unlagged so that all seams and joints are visible. Boilers with an existing certificate can be tested in running order.

For hydraulic tests the safety valves should be removed and the bushes plugged. The pressure gauge should also be removed and its fitting plugged off. Somewhere on the boiler there must be a 1/4" x 40 male adaptor to take the union from the test pump. The pressure gauge, which must have a red line at the working pressure, should also have an adaptor to fit the pump union so that it can be tested against the master gauge.

The boiler must have an Identification number stamped into it in such a position that it can be seen clearly at each boiler test.

When a boiler is presented for a steam test, the pressure gauge must again be removed and be provided with an adaptor to fit the test pump. The boiler should be cleaned as much as possible with the smokebox cleared of ash and the grate and ashpan removed for inspection of the firebox and the I.D. clearly visible. Before bringing it for test the owner should make sure that at least two means of water feed to the boiler are working satisfactorily and the water gauge blowdown valve and the whistle operate.

If you need more information about the testing procedure, please ask one of the boiler testers.

All boiler tests must be arranged in advance with **TWO** of the following testers:

Dave Deller      01732 841194  
Graham Kimber    01732 845931  
Peter Kingsford   01233 712086  
Martin Parham     01622 630298  
Edgar Playfoot    01892 722019  
Bernard White     01634 841899

### BOILER CERTIFICATES EXPIRED OR EXPIRING BEFORE APRIL 2012

MR N.CLARK	5" GAUGE 2-8-4T "DHOLPUR"	30/03/2012
MR N.CLARK	4 1/2" SCALE BURRELL TRACTION ENGINE	16/03/2012
MR P.CLARK	5" GAUGE STANIER 8F 2-8-0	31/07/2011
DR R. COOK	5" GAUGE SWEET PEA 0-4-2ST	11/04/2010
DR R. COOK	5" GAUGE SPEEDY 0-6-0	20/06/2010
MR D.DELLER	3 1/2" GAUGE 2-6-2 BANTAM COCK	25/08/2010
MR D.DELLER	5" GAUGE LNER B1	25/01/2012
MR J. HUTT	5" GAUGE 0-6-2 "MONA"	24/04/2011
MR J. HUTT	3 1/2" GAUGE 2-6-2 BETTY	02/08/2009
MR G.KIMBER	5" SCALE FODEN TRACTOR	13/03/2012
MR P.KINGSFORD	5" GAUGE 4-4-2 JERSEY LILLY	06/07/2011
MR P.KINGSFORD	5" GAUGE SF PACIFIC	04/09/2011
MR M.KNOTT	5" GAUGE 2-6-2T FIREFLY	15/03/2012
MR M.LISTER	3" SCALE ATKINSON WAGON	20/04/2011
MISS J.OLD	5" GAUGE "BUTCH" 0-6-0	27/05/2009
MR M.PARHAM	4 1/2" SCALE ROAD ROLLER "BARBARA"	06/03/2011
MR M.PARHAM	5" GAUGE GWR 28XX 2-8-0 No.2889	19/03/2012
MR C.PHILLIPS	5" GAUGE FIREFLY 2-6-2	08/08/2010
MR E.PLAYFOOT	5" GAUGE HOLDEN S69	04/07/2010
MR J. PUTTIFER	5" GAUGE SIMPLEX 0-6-0	29/03/2012

This list only shows models of 3 1/2" & 5" gauge locos and road vehicles that have had a test in the last 4 years. A full list of steam & hydraulic expiry dates is maintained on the club notice board.

## Building a Polly VI

By Luke and Andy Bridges

The idea for building a Polly VI began in April or May 2009 when Luke decided he was going to take a gap year before going to university. He had been asked to become a student intern at Oakwood Park Grammar in Maidstone and as he would be paid for this position he decided it would be a good idea to build his own engine during this time. Of course, not knowing a great deal about engineering, his dad would have his arm twisted, not too tightly though, to impart his own knowledge and therefore it became a joint project .

After joining the club and talking to a few of the members we decided to build an engine from a kit so Luke went on the internet and found Polly Model Engineering. All the different Polly Models were discussed and after a few weeks a decision was made that it would be a Polly VI as having a tender would enable the driver to have a place to stand his cup of tea whilst driving!

Kits 1 and 2 were ordered in early December 2009 and arrived a couple of days before Christmas. During the Christmas break we began filing, building and painting (aarrh!) the wheels ,axles ,frames and associated parts to complete a rolling chassis.



Whilst the construction of these two kits was taking place the next kit was ordered and this didn't take very long to put together mainly during the evenings. It was all coming together much quicker than we anticipated until we reached the spring and summer of 2010 when we found that we spent a lot of time waiting for the parcels from Polly to arrive. Anyone who has done business with Polly will know that they attend a lot of shows and therefore

delivery of your order can take a while although you are told this when you place your order. We found this to be very frustrating as we just wanted to get on with the building. It was hoped to have the engine completely finished and ready to run for the beginning of the running season in March 2011.

Soon the running gear was fully assembled and we decided to run it on air. The running gear was very tight and it took about 80psi to get it going the first time. It burst into life and it was smiles all round but then a problem was noticed. The reverser lever was forward and the wheels were going backwards!! After a little investigation and much scratching of heads (not the cause of Andy going thin on top) we discovered we had put the centre axle in back to front and we soon put this right and it was given several more runs and some lubrication.

We ordered the next kits which were to include the smokebox and boiler plus associated parts. We didn't hear anything from Polly for quite a long time and a few emails were sent plus phone calls were made. Eventually we heard that they were ready and we went to Nottingham to collect them and also took the opportunity to have a nose around the Polly workshops. After getting them home we put them on to their frames ready for the boiler to have its hydraulic test.



Brass blanking plugs were made and an adaptor to fit the test pump were made and it was taken to Maidstone for its hydraulic test which it passed.

Being members of the Polly owners group we were asked to take it to the London model engineering exhibition at Ally Pally in January. Now we were racing to have all the platework and the tender assembled but not

painted in time for the show. After much elbow grease and every spare minute used this was achieved and the loco duly went to the show.



Once the show was over the engine was dismantled so the platework could be cleaned and painted. This took several weeks and a few trips to Halfords to choose a colour. The colour we finally settled on was Tourmallard green. As Polly is not prototypical of a full sized engine a livery and number was discussed. The tender was to have the letters L,A,B which are a mixture of Luke and Andy Bridges or it could be London and Bristol!! The number on the loco (2411) is the date the engine was to be completed but due to a few minor hiccups it was actually finished one week later. It was taken to the club where it was steam tested. Everything was ok except for a leak on the axle pump pipe banjo. This was removed and silver soldered then and there by Martin.

Over the next few weeks we had problems with the lubricator not working and this was changed for a different type and repiped.

Now the engine runs well and has started passenger hauling.



Her name is Marjorie Evelyn.

## Non Contact Measuring Methods

*Preface:-*

*One of the problems when writing an article relating to a technical subject is the writer understands what to him may be commonplace whereas a reader may well have little or no knowledge or experience of the subject. Having re-read my article I think it may be helpful to simplify the terms "Graticule" and "Collimator".*

*When looking through binoculars, particularly military models, lines or cross lines may be seen superimposed on the image of the object being viewed. These lines are printed on one face of a flat glass disc, the disc being placed at the focal point of the object lens. This disc is a graticule. (Sometimes called a reticule).*

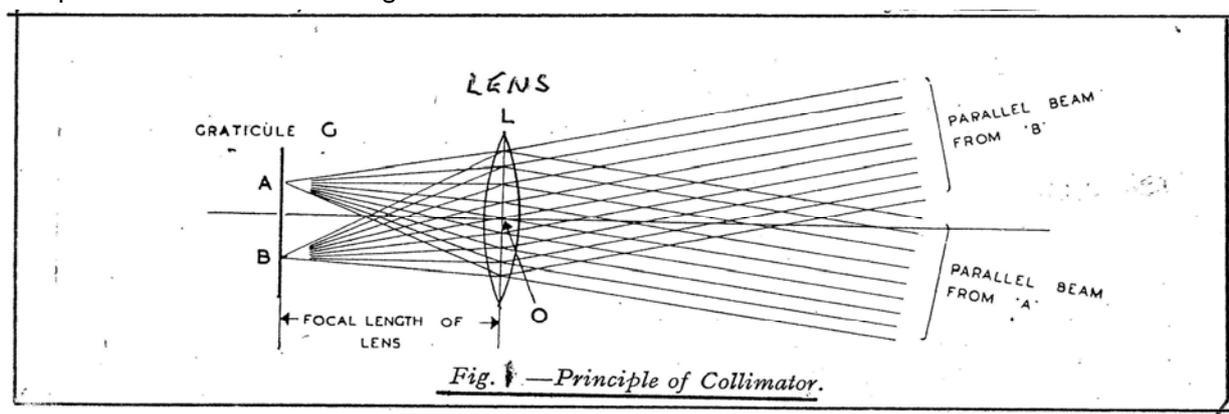
*Understanding the working of a collimator is best shown by a drawing (see figure 1). With the graticule set at the focal point of the lens parallel beams are produced from every point of the graticule. Because all the beams are parallel – not brought to a focus – you need to look back at the lens with a telescope to see the graticule markings.*

Readers may be surprised to learn the first of two optical instruments I describe in this article has, to the best of my knowledge, been in use for at least a hundred years, the second for 75 years.

It is their use and application that has developed and expanded over time. Both instruments are simple yet sophisticated. They are the Collimator and Autocollimator.

What is a Collimator? (See fig.1)

A definition of the term is "a device that causes light beams to become parallel". In practice it will usually comprise 1. An outer metal tube. 2. An objective lens. 3. A graticule. The optical and mechanical centres are normally coincident. In addition a low voltage illuminator may be incorporated to illuminate the graticule.



What is a Graticule?

Normally it is a disc of parallel plain glass 1- 1½ mm thick. On one face lines or characters will be etched or photographically produced. If angles are to be measured the form will be vertical lines numbered to suit. The line spacing also being calculated to suit.

The set up.

The graticule is positioned exactly in the focal plane of the object lens. (This positioning is essential for the correct functioning of the instrument.) A standard formula for calculating the angular line spacing is:- Focus of object lens x tan of angle spacing required. E.g. :- Focus = 10" Angle spacing 0°-5' (.08333°) = 10 x tan 08333° = 0.01454" This is the distance between two lines

equivalent to 5 minutes of arc using a 10" focus lens. The complete format may comprise forty or fifty lines each spacing being one minute.

It is of interest that looking back through the lens with the unaided eye no useful image is seen. However, looking back using a telescope set to infinity a clear image will be seen even if the telescope is set a few feet away. This range is largely a function of lens diameter and intensity of illumination.

#### What is an Autocollimator?

It is a collimator as already described with an integral eyepiece focusing on the graticule which may be edge illuminated. The inclusion of the eyepiece automatically converts the instrument into a telescope set to infinity.

With a mirror placed in front of the objective lens a return image will be seen superimposed on the graticule face. This is a reflected image and the law of reflection comes into play. "The angle of reflection is equal to the angle of incidence and lays on the opposite side of the normal." Meaning one degree of incidence becomes two degrees at the graticule due to it being a reflected image.

#### Applications.

In many cases angles only will be measured. However linear displacements may be calculated using distance and angle information. The following illustrates a few of the practical applications of the Auto collimator. But first, one condition is essential – cleanliness – This is always necessary when you require accurate fine measurement. As an example a piece of foreign matter .00007" thick over 1 inch will give a tilt of ¼ minute of angle.

#### Application 1. Checking prism angles. (See fig.2)

Article. ¾ inch square faced prism.

Angles. 45° - 90° - 45°

Tolerance. 45° within 3 minutes.

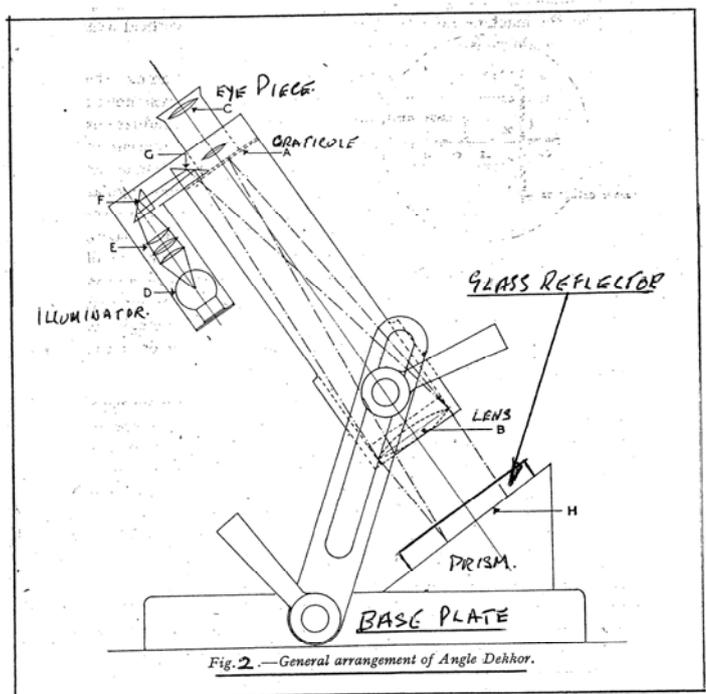
Material. Steel.

Finish. Fine ground.

Defined Tolerance. 45° +/3 minutes.

Because the prism has no reflective surface, we will need a small piece of flat parallel glass polished on one surface to give a reflection.

The Autocollimator will in effect be used as a comparator capable of measuring errors. The instrument used will be an Angle Dekkor made by Hilgar Watts. The graticule graduations will be in one minute increments. The base plate is lapped flat over its whole area.



A Tomlinson 45° angle gauge is used for setting purposes, with the instrument set up to give a return image. These gauges are accurate to within seconds of arc with all angle faces finished to slip gauge standards.

The small piece of flat glass is wrung onto one of the prism 45° angle faces, the assembly placed on the base plate and aligned to give a return image in the eyepiece. Any errors are easily seen and measured. The glass piece removed and placed on the other 45° angle face. Checking is repeated.

#### Application 2. (See photos 1 & 2)

A prototype linear vernier measuring microscope was showing serious inaccuracies when checking against a standard scale. The X7 magnification microscope eyepiece had a cross line acting as a reference point. The sliding saddle carrying the microscope was designed with integral kinematic pads as bearings. The two .625" stainless steel rails were ground to .00025" tolerance. The sliding saddle itself could not cause problems – it had to be the rails. How to find the cause of the problem?



Photo 1

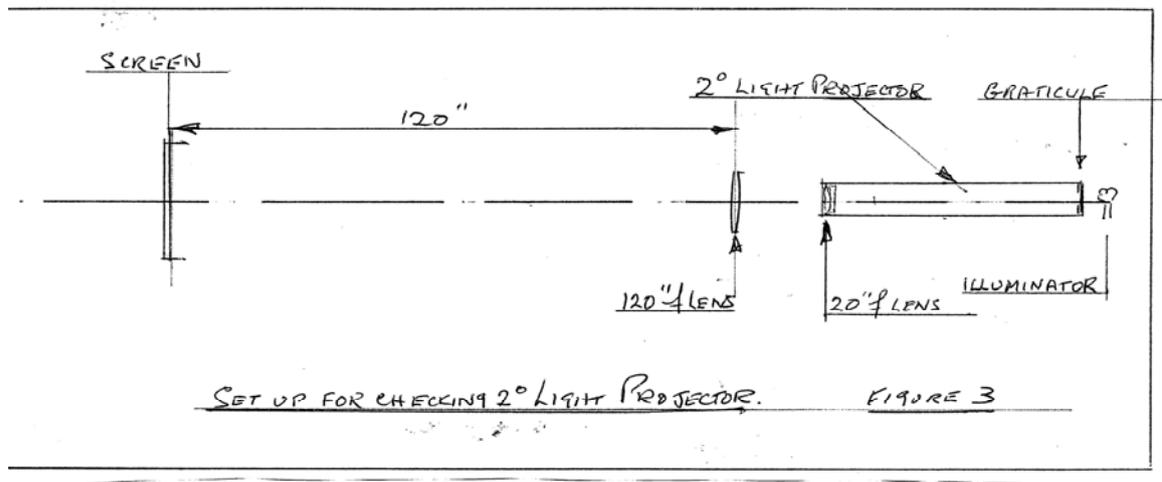


Photo 2

We removed the microscope and replaced it with a mirror set at 90° to the rails. We placed the instrument on a large surface plate and set up the autocollimator to collect a return image from the mirror. Sliding the saddle over its traverse, any angle of tilt will show. The distance from the microscope attachment point to the scale was 5". By calculation of angle over distance linear distance was found to more or less correlate to the error seen. We found a wave form spiral, the pitch of which we considered was the rate of feed used in centreless grinding of the rails. The honing experts, Delapena, supplied special honing stones. These were fitted to a honing fixture and trued up on a hardened 5/8" diameter mandrel. As the honing process proceeded, one could see the high points of the spiral. Within a minute or two all was parallel. Our problem was solved.

Application 3. (See fig.3)

We had made an optical projector giving a beam spread of 2 degrees with a range of 1 mile. Other than theoretical calculation, our customer required practical proof of the accuracy of 2 degrees +/- 2 minutes.



The projector was in effect a collimator – the range a function of lens diameter and intensity of illumination. A 2 degree spread at one mile is 184 feet. Such distances were not practical to check.

I remembered we had made for FVRDE at Woolwich Arsenal a small batch of 120" focus open collimator lenses. We had one in stock! We set up the projector and in front of its lens placed the 120" focus lens. 120" away we placed a screen with 6 vertical lines drawn as follows.

- 2 lines at  $\tan 2 \text{ degrees} \times 120" = 4.1905"$
- 2 lines at  $\tan 2 \text{ degrees plus } 2 \text{ minutes} \times 120" = 4.260"$
- 2 lines at  $\tan 2 \text{ degrees less } 2 \text{ minutes} \times 120" = 4.120"$

The screen was aligned to the sharp image from the 120" focus lens. If the extremities were within the inner and outer lines all was OK.

The graticule for the projector was opaque with a centre cut out of  $\tan 2 \text{ degrees} \times 20" = .6984"$ . 20" being the focus of the light projector lens. All was well.

With the company making optical elements and mechanical instruments, we could easily make special autocollimators or microscopes if required. For instance, we made many thousands of special prisms for an Italian company. Two special autocollimators were made for checking angles at the grinding stage.

Other non-contact methods include profile projection and surface finish microptics. Although not strictly applicable to metal specimens, light is used for stress and strain analysis.

All in all, an interesting subject using old technology in many different ways from alignment in ship building to design and setting in aerospace.

Another important aspect is you do not have to be an Einstein to understand and use it.

Ron Attfield.

## *And Now for Something a bit festive.....*

### CHRISTMAS FRUIT CAKE RECIPE

#### Ingredients:

1 cup of water	2 cups dried fruit	1 cup sugar
1 tablespoon salt	8 oz nuts	4 large eggs
1 tsp baking soda	Lemon juice	8 oz butter
1 Bottle of whiskey		



#### Method:

Sample the whisky to check for quality.

Take a large bowl. Check the whisky again, just to be sure it is of the highest quality.

Pour one level cup and drink. Repeat.

Turn on the electric mixer, beat 2 oz of butter in a large fluffy bowl. Add one tsp of sugar and beat again. Make sure the whisky is still ok. Cry another tup. Turn off the mixer. Break two bowls and add to the eggs and chuck in the dried fruit. Mix on the turner. If the fried druit gets stuck in the beaterers, pry it loose with a drewscraver.

Sample the whisky again to check for tonsisticity.

Next, sift two sups of calt or something. Who cares? Check the whisky.

Now sift the lemon juice and strain your nuts.

Add one table. Spoon. Of sugar or something. Whatever you can find. Grease the oven. Turn the cake tin to 350 degrees. Don't forget to beat off the turner. Throw the bowl out of the window. Check the whisky again and go to bed...

Next day, take three aspirins and go to Marks and Spencer, buy Christmas fruit cake.



## Mertwitt's Musings

In a free society it's all a matter of chance, excepting the situation of arranged marriages, one's creation is the result of a random set of circumstances.

Think about it—in this wide world, two people's paths happen to cross, accidentally or maybe on purpose, and a match results. I will leave the biological bit to the students. My existence can be blamed on the General Strike of 1926. I know what you are thinking, no there wasn't a power cut, and anyway I'm not THAT old.

As a young man, my Dad was running a cycle and motorcycle shop with his brother in Knottingley, Yorkshire. I was told that business was good until the General Strike in 1926, when the effluent hit the fan. Knottingley was a coal-mining area where many workers purchased their steeds on 'extended terms' or the 'never-never', so when the strike took hold, the miners had no money and stopped paying the instalments. The brothers' business collapsed, the solicitor dealing with it went bankrupt. Dad's brother, who had served his time in engineering, got employment in the motor industry repairing cars and Dad joined the army.

Soon afterwards in 1927, Dad was posted to Shorncliffe, near Dover. The regiment was a mounted one, The 4th Queens Own Hussars, and probably involved a lot of glamorous exercising of horses in the streets.

At that time when Mum left school, it was not unusual for girls of her status to be put 'in service' under the roof of a professional family, such as a Doctor, and work as a cook and general housekeeper. These days such employment would be considered slave labour with very little time off. So Mum worked and lived in Canterbury, which is not too far from Dover, and in her no doubt rare time off, met a soldier who I expect was wearing uniform. This is not quite like the current TV drama, but was about the same period.

In 1929 Dad was posted to Meerut, India, at the time an established British Military base. That posting lasted for two years during which time Mum and Dad must have kept in contact because on returning to England he left the army, they got married and then worked as a double act. At that time well-to-do families had horses and needed grooms to look after them. Dad's experience in the cavalry qualified him for that job, while Mum did the housekeeping. So thanks to the 1926 General Strike, here I am.

Two stories related by my parents:

While in service, and during her cleaning duties, Mum found a Florin (anybody remember Florins in the reign of George V?, later called two bob bits) tucked under the edge of the stair carpet. That happened more than once so wasn't an accident. The purpose of that placing by the mistress of the house was twofold. Firstly to check whether the cleaning was thorough, and secondly to test the honesty of the worker. Mum happened to mention that act to the Gardener who was also the Handyman. He said if it happened again, she was to give him the coin and he would deal with it. The next time she dusted under the carpet she found the Florin drilled and screwed to the stair. Nothing more was said on the subject.

While Dad was in the army, as inspection by a VIP was scheduled for the barracks including the stables. Everything was spit and polished and all equipment stowed away. Just before the arrival, the horses were lined up for inspection, and one of them did what horses do—a steaming pile. After the inspection my Father was called to account. Why did he allow the horse to foul the stable floor? His excuse was that all the shovels and buckets had been cleaned and stowed away. "That's no excuse" he was told "These horses are in first class condition. As soon as you saw it's tail go up, you should have stood behind and caught it with your hands!".

JB

## A TRIBUTE TO SUE THE PREDITOR

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Once again I am all behind with my writing. I won't bore you with the reasons (excuses) but suffice to say that most probably I'm in the same pickle as everybody else; an ever increasing number of things to do and a correspondingly decreasing amount of time to do everything in. Additionally, I can also justifiably bleat about getting older and suffering from the inevitable slowing down of physical abilities and the demise of mental agility that seems to be gathering pace at an exponential rate. Anybody else feel the same?

Well, well, well, (three holes in the ground?) Sue has gone and done it, strolled off along the track and into the sunset like a film star heroine slayer of Aliens, Vampires and tardy Article Writers.

Words of acknowledgement and respect are due and probably should have been included in my last article, but there was a little voice at the back of my mind telling me to wait until it was official. It is, so here goes, shooting from the hip as they say.

A tribute to Sue, the retired Predator from the article writers perspective, or to be fair to other writers, this writers perspective. A blend of embarrassing, frightening, respectful and amusing perceptions. How it is viewed does of course depend on through whose eyes it is seen: yours, mine or Sues'.

It has been the case on several occasions that I had to tell Sue that I just couldn't get an article, to the required standard, finished in time. However, somehow I was persuaded, one way or another, to get it done.

How was I persuaded? Guilt was largely responsible and so also was the fact that I enjoy doing it. 'TIME' was, still is and quite likely always will be the problem. Other persuading factors; only one, Sue. When seeing her facial expressions at close quarters, yes I dared to stand within arm's reach, or hearing her words, and tones, that definitively in Predator speak had double meanings. I think a few of those words should be listed here for the benefit, amusement and education of those who didn't drink the drink and write the writing;

Plaintive (menacing)  
requests (demands)  
pleading (threatening)  
understanding (you idle s\*d)  
forgiving (I'll bloody kill you)  
anxious (You are in deep sh\*t)  
desperate (I'm in deep sh\*t)  
inconsolable (We're all in deep sh\*t)

At the risk of being accused of corrupting a well hacked cliché '*I always thrive on stress*' I'm certain that Sue thrived under the pressure to produce a

presentable publication in a timely manner whilst pandering to the foibles of prima donna writers who get very touchy about any editing that might alter the interpretation of their work.

It is hard to resist trying to cause affectionate embarrassment due to respect, Oh Gaawd! do you really believe all that? No of course not, let's go for the throat. Did you know that behind her back she is known as thumbscrew Sue on account of the methods she uses to get articles written, and, so I am told, other things also? Obviously a believer in the brutal approach will get results policy and quite possibly she may well have been Maggie Thatchers role model. But underneath there is a big softie. Who but Sue would keep her cat in the wardrobe just to keep it nice and warm, or even in the drawer under the bed where it could feel safe and secure? (No one else, is the correct answer). Unfortunately the door and drawer were shut so it couldn't get out at feeding time and therefore the poor creature nearly starved to death. This gives a fresh interpretation to 'be cruel to be kind'

How do I know what goes on in her bedroom? Buy me a beer and I'll tell you. Right, so much for flippancy, let's get down to the respect thing – shouldn't take long, here we go then.

When I started writing articles for the MMES newsletter, quite some long time ago, I had no idea that it would become a habit, and one that I would enjoy. OK, so sometimes, well no actually it was quite often, Sue had to get a little bit assertive (in Predator speak:- murderous) and flick the switch to guilt (execution) mode in order to get an article out of me, but in reality she was doing me a kindness in that it has helped me to develop an ever growing realisation that English is not really the worst subject in the world that I hated at school, and never did no good at it anyway, but that it has, as a language so much to offer. The computer with its' many functions, now so well advanced beyond the earlier word processing programs, has helped to expand the scope of my article writers skills. I have really have enjoyed writing articles. For me, the driving force is the personal satisfaction, driven in turn by an editor with deadlines to meet knowing that eager readers are Never Far Away.

Thank you, Sue.



A tribute to Sue: Our very own cover girl!!

# Irish Medical Dictionary

The Irish have the lowest stress rate  
because they do not take medical terminology seriously ...

Medical Term		Irish Definition
Artery	-	The study of paintings
Bacteria	-	Back door to cafeteria
Barium	-	What doctors do when patients die
Benign	-	What you be, after you be eight
Caesarean Section	-	A neighbourhood in Rome
Cat scan	-	Searching for Kitty
Cauterize	-	Made eye contact with her
Colic	-	A sheep dog
Coma	-	A punctuation mark
Dilate	-	To live long
Enema	-	Not a friend
Fester	-	Quicker than someone else
Fibula	-	A small lie
Impotent	-	Distinguished, well known
Labour Pain	-	Getting hurt at work
Medical Staff	-	A Doctor's cane
Morbid	-	A higher offer
Nitrates	-	Rates of Pay for Working at Night, Normally more money than Days
Node	-	I knew it
Outpatient	-	A person who has fainted
Pelvis	-	Second cousin to Elvis
Post Operative	-	A letter carrier
Recovery Room	-	Place to do upholstery
Rectum	-	Nearly killed him
Secretion	-	Hiding something
Seizure	-	Roman Emperor
Tablet	-	A small table
Terminal Illness	-	Getting sick at the airport
Tumour	-	One plus one more
Urine	-	Opposite of you're out

You may remember from the last issue, I had put a photo of Tom and the Bridges boys working on Galloping Gertie's makeover, with an idea of a caption competition. Well I only had one entry, so the winner is Tom with: -



Luke: "This is the worst pitstop ever!!!"

If anyone wants to have a go this time, any ideas what's put the smile on their faces?—this taken from the 2010 Family & Friends day.



**This is for all you women out there who think all men are heartless.**



**Sort of brings a tear to your eye, don't it?**

"I figured you should have breakfast in bed on your birthday. Can you reach the stove okay?"

## DIARY DATES 2011/2012

Friday 2nd December—Bring & Buy with refreshments

Monday 26th December—Boxing day run

Friday 6th January—Video & crumpet night

Friday 3rd February—Bit's n Pieces with Chilli and jacket potato £2 a head.

Friday 2nd March—AGM

Sunday 25th March—First running day of 2012

Friday 6th April—Guest speaker (? To be decided)

Friday 4th May—Anyone for a quiz night?

Friday Nights start around 7-30 at the Clubhouse, evening runs a bit earlier.

Donation minimum £1 per person for Friday evening meetings, feel free to be more generous.

Friday evening meetings are for members and associate members (their families), occasionally for members friends, and for those who intend to join the society.

The AGM is for members only.

Wednesday Playtime Runs now start around 10-30am and generally finish early afternoons.

Events will only alter if an unforeseen situation means change is essential.

The Club's website is at [www.maidstonemes.co.uk](http://www.maidstonemes.co.uk)

Other events known about so far:

*9th, 10th & 11th December—Sandown Model Engineering Exhibition*

*Saturday 19th May—Southern Federation Rally at Guildford*

*8th & 9th September—Martin Evan's rally at Birmingham*

*Saturday 15th September—Chelmsford Open day*



Please note, subscriptions for 2012 are due on 1st January. Please see the enclosed form for you to complete so you can send your monies to the Treasurer.

This year you may notice that we have added the clubs bank details so that you can arrange a direct credit transfer.

(so no excuses for not paying your subs on time... )



As mentioned at the last AGM the subscription has increased, but this now includes cover under the Southern Federation Personal Accident insurance policy.

