VOL 33 ISSUE 4 NOVEMBER 2009

# Mainspring

CHAPTER 104

# Newsletter

NATIONAL ASSOCIATION
OF WATCH AND CLOCK
COLLECTORS

#### President's Report - November 09.

Hello members, this will be the last newsletter for this year so I thought I would look at how the year has gone for us.

The big change is that you are now reading the Mainspring in full colour. This certainly gives our club a more professional image, it has attracted good sponsorship from various businesses, this helps to cover the cost of the newsletter - so please support these businesses as your first choice when purchasing goods and services.

Malcolm works very hard putting the newsletter together so if you like what he has done please let him know. Drop him an email it only takes a minute, better still write something!

All our meetings have been well attended with interesting discussion topics and good displays of clocks and watches, the Library venue seems to be popular so we have rebooked it for next year and hopefully we will have the big room.

The workshops have also been well attended with good informative lunchtime talks on various topics. We are always looking for new presenters so if you can offer something please let us know well in advance.

As you all know we have run two special workshops this year which have been very successful and we do have plans to run more special workshops next year, one in particular is on electrical horology.

Electric clocks are now starting to become Antiques and some are quite valuable. Try to buy a reasonable horizontal balance for less than \$9,000.00 or a Eureka for less than \$2,000.00?. The more common Bullé, Synchronome, Brillié clocks are getting harder to find and most are in poor condition and need a lot of restoration, so if you are looking to move into this area of collecting this course should be ideal. Please contact us if you are interested?

The Membership continues to grow from a five year low at the start of this year, to a present membership of ninety six. We have continued our membership drive this year with brochure displays in shops and businesses around Brisbane.



Our auction in April was an outstanding success, the highest ever attendance and record value of sales. The committee can only organize the auction, it is you the members that have to supply the items and then buy them. I hope this year's auction has given you some encouragement to put some good items in for next year.

As you have noticed from the treasurer's report we have a fairly high reserve of funds, it is good to have this reserve to cover any contingencies but I think we do need to whittle it down a bit. Last year and again this year we are putting on a free Christmas lunch. We have also subsidized the special workshops this year. We are looking for other ideas where we can spend some money to benefit the maximum number of members, this might be special speakers at a meeting or a trip to somewhere, it does not necessarily need to be Horological as long as the majority of members agree and want to participate. So please feel free to call me with suggestions, ideas and feedback, without your input it is up to only a few committee members to continue to drive the club's agendas.

The first meeting of 2010 will be the AGM, we do need you to help run the club, it is not difficult, you are not standing for state government ... just helping to organize a few meetings and workshops for the benefit of the other members, you won't be on national television if you make a mistake! The paparazzi won't be at your front door every day, so please put your name forward to help in some way. A few of the committee members have been doing the same job for years and would like a break so step up and spend a year learning how it is done.

I hope to see you all at the Christmas lunch, there is a lovely menu, a silent auction and you. So enjoy the company of the other members, their partners and have a nice afternoon. (More on Page 8).

Martin Willis - President.



The images above are from http://www.legare-auctions.com/Images1.htm They were all sold in August 2009 by Leo P. Legare in Massachusetts USA

#### **EPHEMERA AT ITS BEST.**

Having watched The Collectors on the ABC on a regular basis, it has become clear that the business of collecting is a very serious but sometimes esoteric activity. There is no end to the range of items people gather together through sheer love of collecting. Some of those objects are extraordinarily obscure too. Perhaps watch papers can be put into this category?

For those of you who have not heard of the term, watch papers, according to the American Antiquarian Society, come under the

term ephemera. They were slotted in with the accumulated objects that librarians and museum curators assemble over the years, and don't wish to throw away, but they aren't sure how to catalog these ephemeral items due to their sheer volume, everything from theatre and music programs, trade cards, invitations, menus, clipper ship cards, merit awards, book plates, currency to stock certificates. It is only of more recent times that a Dorothea N. Spear in 1951 compiled a checklist of the collection of watch papers held by the American Antiquarian Society. However the existence of watch papers goes as far back as the 1700s.

Watch papers were in fact small circular items placed in the back of pocket watches by a maker or repairer and were designed to record the most recent date of the service, as well as protect the timepiece's works from dust and accumulated lint. Watchmakers placed these engraved labels with their names, addresses and date of repair. The papers themselves could vary in size from one and a half inches to two and half inches in diameter, more commonly two inches in diameter. They also

varied in thickness, with earlier pocket watches generally containing better quality paper. The paper itself ranged in colours white, buff, cream, blue, yellow, rose, or orange and also included color combinations from white on silver, gold on blue, blue on gold, or red or green on white.

As the manufacturing of these watch papers became more varied, the labels were engraved more elaborately until they frequently contained illustrations, verses or maxims around the outside. Over time these devolved into tokens of love, friendship, valentine or birthday greetings and memorials for dead loved ones. They could also contain verses of a moral quality and the figure of Father Time and references to the passage of time, to justice, to ships, to anchors, cherubs, and draped figures also appeared with regularity. Where these small items were not made of paper, they were painted or worked on satin and silk. Women embroidered flower patterns, made cut out and pin pricked designs of hearts, forget-me-knots, wreaths, doves and hand stitched monograms. Indeed even references are made to minute, hand written versions of the Lords Prayer and miniature maps of regions as well as the original advertising opportunity depicting the name and place of the business of the manufacturer and repairer.

One reference even makes mention of an advertisement by Hugh Gaines, printer, of a portrait of Secretary Pitt for a watch paper. Given that after July 1797 Pitt legislated in England an act which levied duties upon the possessors of certain clocks and watches, one can only speculate upon the actual purpose of this advertisement. The actual law however was repealed in 1798 due to the representations of the watch and clock making fraternity.

Even more extraordinary were the watch papers (the term paper was still adhered to) that were made of woven hair or crocheted or quilted from fine silk thread.

Does everyone remember the last Mainspring issue, Page 9 - Vol 33 Issue 2 where we reproduced two embroidered samples? Two members were motivated enough to call that dealer I'm told, I wish I had got in first. Also, the New York Times article of November 1899 makes reference to the code of practice which prevailed then of

not removing a pre-existing paper, but simply adding to the number of the protective labels and keepsakes stored in the watch. These watches themselves therefore contained minute historical records of themselves. Thus an old silver watch manufactured by Thomas Brooks of London contained five inserts, a thin protective paper, a watch maker's label carrying the name and address of a J. Hall, opposite the Swan Hotel Birmingham, next came a satin insert embroidered with a pair of intertwined rose buds surrounded by an ornamental border, this was followed by a small engraving of Caverswall Castle in Staffordshire, and all were finally topped by a verse painted on satin which read:

> Here, reader, see in youth, in age, or prime The stealing steps of never-standing Time; With wisdom mark the moment as it flies, Think what a moment is to him who dies.

Imagine how minute and intricate these layered, chronological inserts must have been. But also think how easily they were lost or destroyed. Consequently, watch papers, once neglected by collectors as bits of protective packing between the inner and outer cases of watches, have only slowly become increasingly popular as keepsakes in their own right.

The Old Clock Book by N. Hudson Moore 2nd ed. of 1936, makes the observation that aside from portraits, watch-papers bore verses of a more or less moral quality, like this:

Little monitor, impart
Some instruction to the heart.
Show the busy and the gay
Life is hasting swift away.
Follies cannot long endure,
Life is short and death is sure.
Happy those who wisely learn
Truth from error to discern.

This one has quite as gloomy a sentiment:

Content thy selfe withe thyne estat,
And sende no poore wight from thy gate;
For why, this councell I thee give,
To learne to dye, and dye to lyve.

This, which was most sentimental, bears the date of 1730;

With me while present may thy lovely eyes

Be never turned upon this golden toy,
Think every pleasing hour too swiftly flies,
And measure time by joy succeeding joy.
But when the cares that interrupt our bliss
To me not always will thy sight allow,
Then oft with kind impatience look on this,
Then every minute count, as I do now.

In conclusion, think about my horror when recently an antique watch, coin, jewellery and medal dealer visited Boonah. When I asked him about watch papers he glibly replied, I throw them out of watches unless they're perfect. So obviously given this comment and perhaps their size, watch papers won't readily be found in many old watches traded today. It is to be hoped however, that there are sufficient numbers of old watches stashed away in collections that, to this day, contain a watch paper or sufficient numbers of watch papers to still give the genuine collector satisfaction in being able to track the history of a well loved, treasured, family heirloom or timepiece.

On a final note, the Chapter is interested in reviewing any member's watch papers that come to light after reading this article. A quick email to our Editor will register your interest or show me at the library area at a future workshops meeting.

Jeff Dyer - Librarian.

(1) Moore, N. Hudson; The Old Clock Book. Frederick A. Stokes Company. March 1936.

# Toward a better Understanding of the Grivolas Torsion Clocks, dates and serial numbers.

Recently I purchased a French made 400 day clock. I did not know the age of the piece; who the maker was (the auction catalogue referred to SGDG as being the manufacturer); nor much else about this clock. I had seen it displayed at the Gold Coast some months earlier, at what I thought to be a prohibitive price, but it was a rather attractive piece and something different.

A Google search soon revealed that the maker was Claude Grivolas, an Engineer-Manufacturer-Wealthy Industrialist-Investor. He is reported to be the only known manufacturer of Torsion suspension 400 day clocks based in France and that these pieces were usually of high quality.

Prior to my purchase I had presumed that the suspension had been broken and that it had been very neatly repaired with a tiny splicing block. However, subsequent research obtained from within the 'Torsion Times' Journals and the '1910 Grivolas Catalogue' provided information to the contrary, in that this suspension may be an original compound (temperature compensating) suspension, which uses a combination of both Invar and either steel or heat treated Invar to compensate for changes in temperature. Apparently, the main problem in maintaining accurate time keeping as temperature changes was not expansion and contraction of the suspension, but the variation in the modulus of elasticity (Torsional Modulus). The upper section of untreated invar would cause the clock to gain time as temperature rises due to an increase in the modulus of elasticity. The lower section of either steel or heat treated invar counteracts this increase to keep the suspension in equilibrium as the temperature varies.

It has been estimated, that, the temperature induced changes in the modulus of elasticity has a twenty fold greater effect in maintaining accurate time compared with the change in the length of the suspension due to the coefficient of expansion.

Today the modern Horolovar suspensions achieve this same outcome.

A series of identification marks appear on the back plate. A thesis has been suggested to identify the





Two illustrations from 1910 - Pendule 400 Jours, Fabrication Française. Chapter 168 Supplement, December 2001 USA.



NO.B.11-2983-6
YEAR MADE UNKNOWN MEANING

typical markings as seen in the graphic above:-

- 1. Model No. of which there are Three Letters (A,B & C)
  - 2. Year of Manufacture
- 3. A continuous sequence of Serial Nos. throughout the total production and
- 4. Final numeral of unknown use. Two basic pendulum shapes have been identified throughout production. The change from a 'flat square edge' to the predominant 'round edge' design is estimated to

have taken place in about the 3rd quarter of 1908. At an additional cost, to that of the standard pendulum, numerous variations of ornamentation were available as were a choice of hands.

No 263 - Prix : 200 francs

Régulateur " Empire "

Many patents were granted from French, German, Swiss, British and US authorities between 1906 and 1911. One particular French patent issued in 1906 relates to his method of forming work hardened pivot holes. In precis form, Grivolas wrote in his 1910 Catalogue:- "The plates

of horological movements require a small recess, called an oil reservoir, where the pivots run. The depth of this recess reduces the thickness of the plates, thereby increasing the rate of ovality caused by the rubbing of the pivot within its hole. In order to prevent decentering, all pivot hole recesses have been formed by compression of the plate metal, thus hardening the immediate area and reducing wear. The process leaves a circular impression on the inner surface of the plate which again aids the retention of oil."

My early 'A' model serial No. 183 does not display these circular impressions leaving me to suggest that not 'all' pivot hole recesses were manufactured as stated in the 1910 catalogue.

One further feature of particular interest is the removable bridge supporting the rear pivot of the anchor arbor. This arbor can easily be removed without separating the plates for investigative purposes, and is also very advantageous if attempting to make any change to the adjustable pallets, introduced toward the end of the 'A' Series movements in the latter half of 1909.

It has also been established that Claude Grivolas assembled timepieces using German movements. It seems, perhaps to increase sales volumes, Grivolas utilized movements sourced from the German manufacturers P. Hauck and Jahres Uhren Fabrik. The three features which identify clocks with German movements are that :-

- 1. German plates are rectangular in shape - Grivolas are round.
- 2. Most German movements are rear wind as distinct from the front wind Grivolas
- 3. The German model normally equipped with a typical German six pillar gallery disc pendulum.

Grivolas added his own distinct identification serial number to the edge of these movement back plates and also usually to the pendulums. Data sourced from the author Charles Terwilliger indicates that P. Hauck movements, manufactured as early as 1907 were the first 'German' movements supplied to Grivolas and that the movements supplied by Jahres Uhren Fabrik were manufactured no later than the latter half of 1908, a supply duration of less than two years from both manufacturers.

Mike Ward - Member.

#### Workshop Report 13 Sept 2009.

Seventeen members in attendance, apologies from Ron Walker, Neil Herbert and Mal Enright. As is usual at the workshops meeting the members worked on a variety of clocks. Ron Doyle showed an example of the damage that can occur when a mainspring breaks. The case of an open spring American steeple clock had the side smashed out by the force of the breaking spring. When I spoke to him he had not dismantled the clock but it would be a safe conclusion that the damage was not restricted to the case alone. In all probability there will be bent arbours, damaged wheels and pinions. Fortunately the damage was confined to the clock which was just ticking away in his workshop, it could have been very different if he had just removed the movement from the case and was holding it when the spring broke. It is a wise precaution to treat any spring as if it was about to break, this one burst a clock case, it would have made short work of an eye or face, treat springs as if they were about to break, mostly they dont but be prepared for the one that does.



Jimmy Dunn had served an apprenticeship and been trained in the professional restoration of antique furniture and as such was well qualified to provide a demonstration on veneering and repairing damaged veneer. He had put considerable thought into his demonstration which began with importance of making sure that the veneer was flat. He demonstrated two methods, one using contact adhesive, the other the traditional old fashioned animal glue. I think that most of us thought the animal glue would be too messy and had preconceived notions that modern must be better. However after Jimmy had demonstrated both methods, most of us were convinced that the professionals know what they

are doing and would only be using the animals glue for future repairs. Jimmy showed us how a small piece of damaged veneer can be removed and replaced. He demonstrated using a mixture of animal glue to make an excellent job of grain filling and preparing a dead smooth surface on the veneer for the polish.



Bill Meeken provided the lunch time talk on some of the unusual torsion clocks. He covered clocks from thirty hours to one thousand days and the Atmos clock and explained the reasons for these clocks. It was an interesting point that most torsion clocks have been developed and differ only to a small degree from the clock of Anton Harders patent of 1882. Bill brought a fine selection of clocks to illustrate his talk which dovetailed in nicely with the two day workshop to be held on the following weekend.



Tony Roberts showed the group the new tumbler he is building.

There is a minor change in the library, Jeff Dyed has obtained permission to put another of our steel library cupboards beside the existing one and he plans to gradually transfer the Chapters magazine collection to this cupboard. The library was well used as usual.

James Hutchinson - Secretary.

#### **OCTOBER 2009**

S	S	F	Τ	W	Τ	M
04	03	02	01			
11	10	09	80	07	06	05
18	17	16	15	14	13	12
25	24	23	22	21	20	19
	31	30	29	28	27	26

#### NOVEMBER 2009

	S	F	Τ	W	Τ	M
01						
08	07	06	05	04	03	02
15	14	13	12	11	10	09
22	21	20	19	18	17	16
29	28	27	26	25	24	23
					31	30

#### DECEMBER 2009

	S					M
06	05	04	03	02	01	
13	12	11	10	09	80	07
20	19	18	17	16	15	14
<b>27</b>	26	25	24	23	22	21
			31	30	29	28

#### JANUARY 2010

S	S	F	Τ	W	Т	M
03	02	01				
			07			
17	16	15	14	13	12	11
24	23	22	21	20	19	18
31	30	29	28	27	26	25

#### FEBRUARY 2010

				W		
07	06	05	04	03	02	01
				10		
21	20	19	18	17	16	15
28	27	26	25	24	23	22

#### MARCH 2010

			Τ			
07	06	05	04	03	02	01
			11			
21	20	19	18	17	16	15
28	27	26	25	24	23	22
				31	30	20

#### Chapter 104 Program to date for 2009-2010.

From Secretary & Workshop Co-ordinator Paul Hutchinson, input from assistant Workshop Co-ordinator Bill De Kaste.

- Sun 01 November 2009. Workshop. Demonstration, Mervyn Whittenbury: Dismantling, cleaning and reassembly pocket watch. Lunchtime talk. Martin Willis: Electrical safety in the home workshop.
- Sun 06 December 2009. Christmas Party. (Held at the Balmoral Bowls Club) \*Booking deadline Sun 15 November 2009.
- Sun 17 January 2010. Workshop. Demonstration, Tony Roberts: Cleaning and polishing a black marble/slate clock.
  Lunchtime talk. Norman Heckenberg: A talk on the formation and planning of the new Electrical Horology group.
  Input will be sought from individual members. Norman asks those who cannot attend but who are interested in supporting the proposed new group to get in touch to register their interest.
- Sun 07 February 2010. Annual General Meeting.
- Sun 07 March 2010. Workshop Meeting.

Sun 11 April 2010. General Meeting.

Sun 18 April 2010. Auction.

Sun 16 May 2010. Workshop Meeting.

Sun 05 June 2010. General Meeting.

Sun 04 July 2010. Workshop Meeting.

Sun 01 August 2010. General Meeting.

Sun 12 September 2010. Workshop Meeting.

Sun 03 October 2010. General Meeting.

Sun 07 November 2010. Workshop Meeting.

Sun 05 December 2010. Christmas Party.

General Meetings are normally conducted at the Chermside Library, Hamilton Rd, Chermside commencing at 12.30 pm and concluding at approximately 4.00 pm. Mart items should be set up for 12:30 pm start. Afternoon tea & coffee is provided but please bring a plate to share. Please bring interesting new items for show and tell as this segment proves to be most popular.

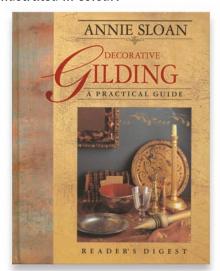
Workshop and Special Interest Group Meetings are normally conducted at the Balmoral Bowls Club, Jean Howie Drive (off Wynum/Bennetts Road), Morningside commencing at 9.30 am & concluding at 4.30 pm. Bring lunch, morning and afternoon tea provided, but please bring a plate to share.

#### Password for Chapter Web Site:

The Chapter web site address is <qldclocksandwatches.org.au> Certain parts of the website are for members only. The password for this area is <<qld><qldclocks>> Currently there are only newsletters in this area.

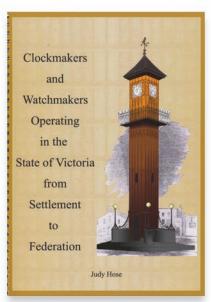
#### Recent Books in the Library.

Sloan, Annie; Decorative Gilding, A Practical Guide. 96 pages fully illustrated in colour.



A useful book for the beginner, this is an exceptionally well illustrated introduction to a variety of techniques to revamp everything from walls, metal, modern pieces to tired furniture surfaces. The book covers the use of metal leaf and bronze powders in separate sections. A Reader's Digest publication, 1996 edition, but very practical from outlining tools and materials to the use of a variety of metal leaf techniques and then to combining techniques.

Hose, Judy; Clock Makers and Watchmakers operating in the State of Victoria from Settlement to Federation. 209 pages, no illustrations, reference material only.

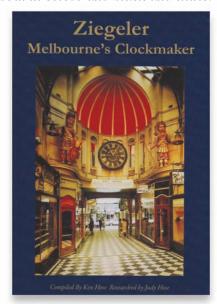


This book provides very specialized information. The title is somewhat self explanatory- a compilation of lists of names of Victoria's clock and watchmakers

1841 to 1901. All material is presented in alphabetical order with accompanying obituaries where available.

Owning a Melbourne made clock I found this reference particularly useful in trying to place the clock's age and gain further details on it's manufacture.

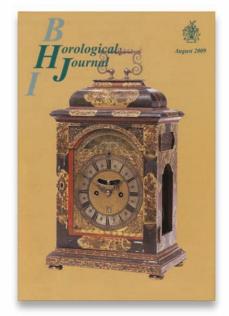
Hose, Ken and Hose, Judy; Ziegeler Melbourne's Clockmaker. 163 pages, plenty of illustrations both in colour and black and white.



Another book compiled and researched by Ken and Judy Hose tracks the extraordinary story of Johann Frederick Wilhelm Ziegeler, a German born scientific instrument trained, clock and watchmaker who came to Victoria in 1883. An exceptionally well researched and illustrated biography with a great deal of additional technical and historical information about the public clocks of Melbourne and surrounding towns and regions. The pages are actually presented under headings of place names and public buildings with detailed photos and descriptions, of where a Ziegeler clock was assembled and installed. The authors argue that the information provided is a starting point to which further research materials need to be added. Nevertheless meticulously researched and plenty of detailed description and photos of many of Australia's famous and long established public clocks.

#### British Horological Institute Journal, August 2009 (BHJI).

We are now subscribing to this journal so a little bit of background information.



Clerkenwell District of London, the home of the clock and watch making industry, in 1858. A group of watchmakers joined in an attempt to combat the large quantity of clocks and watches flooding into the country from abroad and to raise the standards of British Horology.

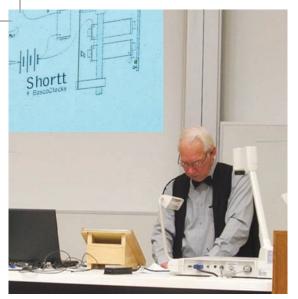
The Institute grew rapidly and within a year had found permanent premises and started both a library and a museum. The Institute is proud of its Horological Journal which is the oldest technical journal in the world, having been published without a break since September 1858.

A copy of the Journal arrives monthly and contains a wealth of news and information of interest to horology enthusiasts. The journal maintains a good balance of articles in each issue covering clocks, watches, turret clocks and electric timepieces in articles that may be theoretical, practical or both. There is also much useful and beautifully illustrated advertising.

# Antiquarian Horological Society, June 2009 (AHS).

The society is a learned society formed in 1953 to promote the study of clocks and watches and the history of time measurement in all its forms. Their journal is published quarterly and is titled Antiquarian Horology. There are around 500 pages each issue. Contents cover only the best quality advertising including auction advertisements, feature stories, book reviews, picture galleries and repair notes. All information is beautifully illustrated, very detailed and very readable.

Jeff Dyer - Librarian.



On Tuesday September 15 Chapter 104 member Alan Emmerson presented a talk in the Tools of Science series associated with the University of Queensland Physics Museum, entitled Their Own Right Time - A tale of two clocks.

It was also a tale about two men, eminent scientists who in their spare time each built a clock technically superior to anything that had preceded them. One is Philip Woodward, engineer, mathematician, harpsichordist, and computer scientist, and author of the book My Own Right Time about a very simple but ingenious mechanical clock he built himself that is outstandingly accurate. Alan has been corresponding with Woodward for years, and last year visited Malvern to meet him.

The second man was the late Professor Edward Hall CBE who was Director of the Research Laboratory for Archeology and the History of Art at Oxford University. He was jointly responsible for revealing the Piltdown Man hoax and his laboratory was one of the four which carbon-dated the Shroud of Turin. He was rather well off and had a large collection of antique clocks and scientific instruments. On retirement he was able to spare no expense in building the most precise pendulum clock he could envisage.

Alan reviewed some of the basic science of pendulum clocks and the factors which affect their period, like air damping, temperature variations, escapement error and ultimately, variations in gravity, and showed how the classic observatory clocks, like the Shortt-Synchronome from the 1930s and the Fedchenko from the 1960s, were designed. Philip Woodward's W5 is more like the Shortt but much smaller, with two pendulums of different periods in PAGE 8

the ratio 7 to 10, and weight driven. To explain its performance, Alan explained the concept of the Allan variance, a measure developed to analyse the performance of superhigh accuracy atomic clocks over different time periods. In these terms, we can say that over a measuring period of 100 hours, W5 (below) is accurate to about 25 milliseconds per day. Philip Woodward made much of W5 on his kitchen table with hand tools, but the picture shows a copy made by perhaps the worlds best horological craftsman, David Walter.

The Littlemore Clock, named after Prof Hall's home, was altogether much more massive, in an ultrahigh vacuum chamber inside a temperature controlled house mounted on a 4 cubic metre concrete pylon inside his private laboratory. The pendulum was impulsed electromagnetically and the amplitude of the swing was measured and adjusted to remain constant, using a computer system linked to GPS time. This has worried many horologists, including Alan, but he reported that he had recently come to understand why this is fact does not really unfairly help the clock, and also why the rate of the Littlemore Clock does not show the effects of Earth tides like the Shortt does. He showed some computer simulations to demonstrate that the Littlemore Clock would be much less sensitive to these effects because of the active control of the amplitude. With a long term stability an order of magnitude better than any previous mechanical clock it can claim the title of the most accurate (basically) mechanical clock ever made. N. Heckenberg.





#### Show'nTell P036 & P046.

Another recent acquisition is a Gents Post Office model 36, (top right of photo) it has a one second pendulum and uses the Hipp toggle which can be seen at the bottom left of the grey back plate. The two coils right, below centre of the plate are energized by the Hipp toggle action.

The two wheels above centre of the plate both are thirty tooth wheels but some teeth are cut deeper so that the pawl drops lower in the tooth and pushes the contact lever. The wheel on the left is the six second contact, the wheel on the right is the thirty second contact (out-put for slave clocks). The two contacts at the top are the one second contacts. I have the clock working but it is not driving any slaves at the moment - I will rectify that soon.

The smaller clock (top left of photo) is the Gents Post Office model 46 with a half second pendulum it has the same outputs as the 36 so I use the thirty second one to drive a 24" slave dial on the garage wall.

These types of masters were used in phone exchanges to generate certain signal functions and not necessarily driving slave clocks.

If you would like to know more about electrical horology contact Paul Hutchinson or myself as the club is at the initial stages of planning an electrical horology group within the general workshops. Again, Happy Hunting for these types of clocks.

Martin Willis - President.

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Chapter 72

Program to hand:

Unless otherwise noted, Chapter meetings are held on Sundays:

in the Wentworthville Uniting Church Hall

near the corner of Station & McKern Streets,

WENTWORTHVILLE, NSW commencing 1.00pm to 5.00pm

Please bring along your clocks/watches/books (that are relevant to the

topic) for the display

07 February 2010
Collections and the Law
by Phillip Bell, Solicitor
Up Big Ben by Alex Rodgers

11 April 2010 Red Cedar in Clock Case

Making by Clive Pickering (subject to UK trip)

06 June 2010 Small talk - Europe

excursions by John Stapleton

TBA - a watch topic

01 August 2010 Loctite and Seiko batteries and power packs -

company representatives

Chapter 122 Program to hand:

Meetings are held every third Monday of the month at the Eley Park Community Centre Elett Road BLACKBURN SOUTH VIC at 8:00pm

16 November 2009 Clock Services, Parts & Auctions on the Internet by Mick Connolly

AAHS Christmas Auction 05 December 2009 This year includes 50 Fob watches, vintage wrist watches, parts and books Sale includes gold fobs, Rolex and Omega watches Chapter 182 Program to hand:

Normal meetings start at 1:00pm on the last Sunday of the even months, except December at The Irish Club, 6 Parkinson Street WESTON ACT Phone 02 6288 5088

23 January 2010 Workshop - How to Identify and Appraise Clocks and Watches day in Rogers workshop

28 February 2010
AGM -Special General
Meeting (Constitution).
Clocks - Research and
Conservation of Antique
Clocks by Dr Jeff Brownrigg

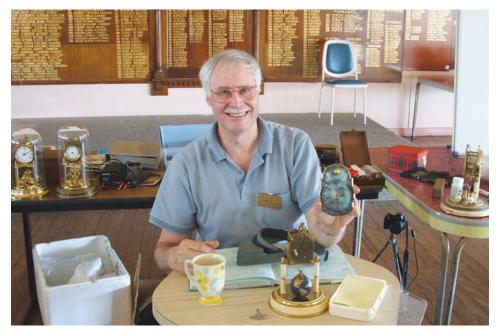
25 April 25 2010 Clock Cases - Restoration and Conservation of Clock Cases and Australiana by Greg Peters

#### Lindsay Bramall 2 day Workshop Report 19-20 September 09.

Entitled 'where angels fear to tread' - the session covered Adjusting 400 Day Escapements.

This was the second, fully subscribed workshop conducted by Australia's Torsion Clock default guy ... Lindsay knows more about the subject than anyone else I know, in fact when Australian clock dealers get something unusual, who is the first person they call? - our speaker for the next two days and speak he did, with the help of visual aids and a well-prepared Power Point using mostly his own illustrations and those in the Horolovar clock repair guide. First we were treated to a great introduction to the unique gear ratios and the power to the escapement that we find in this particular type of clock - the lock & the drop should be equal. The group was taken through a series of clock factory set-ups; Graham Dead Beat (the first escapement dating from 1880) and the other major torsion escapement; the Pin Pallet. Verge, Cylinder and Pin Wheel escapements were also covered in depth. The eccentric depthing button with all it's complications, cautions and eventual outcomes if tampered with, was explored in much depth. Next it was Pin Pallet instructions, those brittle little pins and the many opportunities for frustration leading to failure. We were given clear instructions for observation, evaluation and trouble shooting. Pin replacement techniques, eccentric button knowledge and then we moved to the final steps to getting the clock to run. The white board worked overtime before the first coffee break.

Breaking down the plates, the tell-tale signs of a faulty mainspring, the top block, the bottom block, the optimal position of the suspension fork was covered with Lindsay's usual helpful hints for altering tools for the specific job or making the tool from common resources. The anchor pin should be always vertical in the two planes, the fork gap setup and general escapement repairs were covered next. Getting the pendulum in beat, the Horolovar beat setting tool plus the presenter's own altered set of common pliers were covered. Advice on suspension adjustment, initial set up power, rotation degrees and the difference in makers, models through to miniatures & midgets.



After covering all of the above, Lindsay moved into powering down and observing numerous 400 day clocks assembled for this purpose. Workshop participants ran through power down, suspension off, dial off, pivot wear, barrel rocking, wheels up through the train, plate & barrel bushes checked for wear and finally the plates apart on both clocks brought to the session for this purpose. These two clocks were auctioned by Ken Durston after their full evaluation, so there was no buyer beware - the assembled party knew exactly what they were getting for their money.

After lunch and much chat, the session resumed late as Lindsay was shown many items brought along by members, he offered great advice and supported members activities to the best of his ability.

Barrels, stepped bushes, spring specifications, spring repair and preparation were covered. When asked about spring lengths, spring strengths and replacement issues (and how to work this out)? Lindsay advised us of the existence of his own Excel spread sheet written to calculate the spring length from the barrel dimensions, one he uses at Smith & Smith. He's promised to send this to the club and Norman will post to gldclocks in the near future. In fact as most attendees present were at Lindsay's first 400 day & Bullé session where we were shown steel tempering, spring arbor repairs and spring maintenance, the repeat was not necessary and the session moved on to how to make a new set of pallet pins. We covered all aspects of pallets & escape wheel checking,

marking the pallets with a 'tide' mark before loosening and moving pallets. The use of the block to support screw loosening. Escape wheel teeth repairs, what to look for and general cautions on this most important part of the clocks escapement. End of a long and rewarding first day.

Lindsay had set up numerous electrical/electrical mechanical clocks for the group to observe before the second session started as this was the second order for the day. First we ploughed on through the remaining pin pallet issues, mainly the pin replacement. What material to use, removing broken pins, hole and pin preparation, the use of a staking set and finally the finishing of the metal work prior to populating the plates.

Lindsay now shifted focus to those clocks that members assembled for this session's review, his knowledge of models, types, dates, manufacturer's lineage just fell from his memory. I must tell you, he had no advance warning that Tony Roberts was bringing a recent Sydney find - his new four glass Tiffany torsion clock. Lindsay rattled off every aspect of Mr Tiffany's personal life; his rise and fall, the development of specific models, his manufacturing business' movements to parts of New York and further upstate, the names of models matched his new location . . . all of this I found intriguing until later on that night when I went to my own library and opened up Rita Shenton's Collectable Clocks and there almost word for word were Lindsay's presentation facts!

So we started with a large Bandstand or Tholos model. Badische with lantern pinions. Next a Kaiser

Universe, sans chapter ring where Lindsay even offered info gleaned from a lifetimes activity - what part to look for if you loose a moon globe; the ball diameter of the Schatz 53 matches the globe size perfectly. The larger barrel to power the moon phase, issues with metal preparation when covering with paint for the second time, the item evaluation continues; no lateral movement on the barrel, a double twist found on the suspension and how this will affect the clock's performance. The drop & lock - 2', how far up the pallet does the escape tooth hit? Next to a Schatz 49; good quality, anchor pins moved forward - more arc equates to less power, eccentric button tampered with, suggestions as to altering the load.

An early Jahres Uhren Fabrik D.R.P. model c1906 was observed. Here we all clicked onto the backplate illustrations in the Horolovar repair book, alphabetically listed, looked for the plate holes etc matching the model drawn. The plate number notes, this is accompanied by pendulum types, suspension spring specifics and additional appendix notes. Lindsay's further knowledge was tested where he divulged that as this model had the unusual Medusa type of pendulum Lindsay noted that it was probably made by W.Wurth - a rare model, only the second one he has seen with this plate #1049A, and one that John Hubby in the USA would welcome a photograph of. 50mm dial, pie crust bezel, perfect hands and enamel dial, a non-original crest, suspension guard, thread adjuster snapped, unique fork, bottom block unique, barrel issues though - new spring required, centre wheel re-bushed, solid escapement. Original dome noted and general dome discussion ensued.

Next to a premium Gustav

Becker 4 ball model in original condition with original dome & bow tie decoration below the dial - item (C) entitled Rose. Appears to be a model c1907 based on the diagrams and plate holes only the serial number gives away a later date of manufacture c1926 and from the Junghans, not from the Gustav Becker's original factory in what was Silesia, Prussia, but now in present day Poland. Flat suspension guard noted, (most have lost a screw and have been discarded in previous repairs), top beat adjustment system as seen on Beckers, the base of the Becker was also talked about - the brass base with cardboard pads and domed pin on brassed steel cap, not enough play in the escapement, teeth tips fine, issue with exit & entry depth on lock to be increased.

Kern miniature 3 ball with peninsular anchor pivot hole which is equally subject to abuse as the eccentric button, a caution given with these types, spring almost fully wound, let down tricks applied, anchor pin kink.

Early Kundo c1923 + Schatz Coronation model c1954, small 4 ball reviewed with additional barrel replacement info provided - the barrel in the JUF wall clock is identical. Here endeth the two day, 400 day epistle.

So after afternoon tea the group changed focus to "Magnetism in Clocks" with a separate powerpoint that started exploratory discussions on electromagnet & electromechanical principals in clocks, the synchronous motor in horology prepared and presented by Lindsay supported by a display of numerous small motors and movements used in time keeping. He reiterated his previous demonstrations of re-magnetising bar magnets from his earlier Bullé

workshop and the discussion ended with Lindsay's information about how the Sydney Chapter 72 had successfully initiated an Electrical Group by first of all developing and staging a "starting with electricity", 9 part lecture series created by Rod Elliott which has been overwhelmingly successful. With similar ideas already floated in our own Chapter, the fact that we already have some electrical gurus of our own Lindsay offered our Chapter a copy of the notes and supporting program. The usual thank-you was offered by Paul Hutchinson on behalf of the Chapter 104 and all members present joined hands in their support.

Malcolm Enright - Editor.

Eleven pages of Mal's notes are downloadable as the one small file for everyone to use:

http://www.co-opones.to/male/ viewer/images/malE-LindsayBNotes-11pages.pdf

#### A few thoughts from the workshop coordinator.

I have sought feedback from the members who attended this two day workshop, all have been very positive about the weekend; certainly there have been no negative responses.

Lindsay Bramall's knowledge of 400-day clocks is so extensive that while the most recent and least experienced members learnt an enormous amount; those members with many years of experience behind them were also able to gain from the weekend. The Chapter thanks Lindsay for so generously giving up two days of his holiday to help our members, (thank you Lindsay). I wish to thank those who pitched into help with the workshop, Bill Meeken power boards and leads, Norman Heckenberg laptop and projector, Ken Durston for catering the excellent lunches. I am delighted that Mal was able to take notes; I tried but found the task of taking about twelve hours of notes and still being able to concentrate on what was happening beyond me. I must use this opportunity to advise that I will not be taking on the position workshop coordinator next year and with Bill DeKaste relocating interstate - the Chapter will need both a workshop coordinator and assistant. I will assist the new workshop coordinator in every way that I can.

Paul Hutchinson - Secretary.



## Prouds master clock at Kingaroy first report.

A chance conversation with Jim Blyth, who is responsible for maintenance of the Synchronome master and slave clocks at the Kingaroy Court House and the Nanango Shire Offices, led Norm Heckenberg, Greg Baker and Tony Roberts to visit Kingaroy to study the electromechanical tower clock which was originally installed in the Kingaroy School of Arts in 1918.



The clock drove three, four foot dials in the cupola of the School of Arts and was removed from the building when it was demolished in 1967. The clock was restored by the local Rotary Club and placed in an imposing glass display case in the Kingaroy Town Hall. The display case incorporates the electromechanical movement, drive work and a new chain drive to the motion work driving the original hands behind a painted four foot dial. It remained there for 35 plus years before being relocated about four years ago to the Kingaroy Heritage Museum. The clock has not run for many years. Norm and I decided that we would assist Jim and the Heritage Museum who wanted to return the clock to working order. The clock movement was intact and missing only the chain which drives the motion work within the display case.



Tony eagerly assisted by Museum staff
A letter and a few emails later
the local council agreed to the
restoration and to pay for our travel
etc and we would provide the labour
at no cost.

This tower clock is a very early Prouds of Sydney electromechanical tower clock movement and is similar to the movements in three tower clocks installed at the Circular Quay ferry wharves in 1915. Thomas Murday from England was then in charge of Prouds Electric Clock and Scientific Instrument Department. His trademark and patented ratchet and two pawl mechanism is evident in this clock along with his unusual worm drive system to the three dials. Pictures of this type of clock survive, but this is the only movement which has been located and it was wonderful to see it preserved in such good condition.



Murdays Ratchet and double pawl mechanism



Murdays Worm Drive Work to the Dials
The story behind the clock
installation of this clock is not
without some drama. It was
dedicated to the memory of Archibald

Blue. As we learned from Museum Curator Maria Thoumine, Blue was the first editor (from 1906) and manager of the Kingaroy Herald and Burnett Advocate, a journalist of repute and heavily involved in local activities, including the School of Arts, which was a centre of leisure and culture in the town.

His death was reported in the Melbourne Argus (Monday 9 October 1916, page 8) on a page filled with reports of protests and demonstrations against and in favour of conscription of men to serve overseas in the Great War. The first referendum bill had been passed on September 21, and mandatory registration and enrolment had commenced. By October 5 The Age reported that of 11607 men examined, 4581 were found fit, approximately 40 per cent.

Blue had used his paper to accuse local barber, Adolf Hoffman, who was of German origin, of treacherously distributing leaflets calling for an anti-conscription vote in the referendum to be held on October 28.

### NEWSPAPER PROPRIETOR'S DEATH:

KINGAROY (Q.), Sunday, - Mr. Archibald Blue, the proprietor of the local newspaper, the "Herald," died today. In last Friday's issue of his paper, Mr Blue accused a local barber, who is of German nationality, with circulating anti-conscrition literature. The two men met on Saturday afternoon, when it is alledged that angry words led to blows, and as a result Adolph Hoffman has been arrested.

We dont know if Hoffman was subsequently found guilty. History tells us that the referendum was held on 28 October 1916 and lost, as was a second one in 1917.

Tony and Norman have now been



to Kingaroy a second time and had the clock going with some temporary repairs. Restoration work to date includes rebuilding the insulation of the contact block along with alignment of the contacts and the manufacture of a new toggle to the design used by Prouds in their early clocks. They have brought more parts back to Brisbane for cleaning and maintenance. They hope to have everything running again by the end of October.



Tony and Norm discuss the project with the Museum Curator, Maria Thoumine prior to the restoration initiation

The Museum holds the three cast iron clock dials, two with some of the original opal glass held in store and the third has been set into the concrete walkway in the Arts and Heritage Precinct forecourt. The location of the other two sets of hands and associated motion work is unknown. In the photo the words PROUDS Ltd ELECTRIC SYDNEY can be seen on the centre opal glass panel.



Tony and Norm holding an original dial

Entry to the museum is free and there is a tourist information centre alongside, so if you are in Kingaroy, call in for a look. Both are housed in the old Kingaroy Power House located at 128 Haly St, Kingaroy Queensland, phone 07 4162 6272.

Compiled by Norman Heckenberg & Tony Roberts.



#### Another great public clock for these pages.

The World of Interiors - October 2009 The 150th Anniversary of Big Ben is to be celebrated throughout 2009 and I've just heard about it! For further information call UK 020 7219 4272 or visit www.bigben.parliament.uk

Terrific visuals by Christopher Simon Sykes, text by Timothy Brittain-Catlin. Condé Nast Publications Limited, London. Malcolm Enright - Editor.

#### A few thoughts.

If you havent supplied an internet address, please do so? I would like to remind members of some of the advantages; frequently information such as notices of special meetings, special auctions, and items wanted or for sale, meeting notices, agendas and minutes of meetings, newsletters from other Chapters etc. are all effectively distributed by email in a timely manner.

A new Chapter year is approaching rapidly. All Committee positions will be declared vacant and you are encouraged to participate in the administration of the Chapter. The Chapter always needs new people coming forward to participate with the administration. Perhaps you are uncertain just how you could help. Have a chat with the President or any member of the committee. People do age and get other interests and it is essential that the Chapter continue to have new members joining the committee. Apart from the usual administrative roles two important rolls that will need filling are that of workshop coordinator and assistant coordinator. If you think that you may be able to help mention it to the President.

At the special workshop in September considerable interest was displayed in battery, electric and motor driven clocks and it was resolved that we would form special

interests group for this growing field of interest. Immediately it became obvious that prior to attempting the repair and conservation of clocks members of the group would require some degree of electrical knowledge. Lindsay Bramall offered support sending us the notes that Chapter 72 had used when they set up an electric horology group and naturally we were happy to accept this generous offer. At the last workshop it was decided that initially the group would focus exclusively on the teaching of basic electricity and magnetism, prior to attempting and conservation of clocks. Norman Heckenberg has agreed to head the special interest group and will present further information regarding the formation of this group at the Workshop meeting 17 Jan 2010.

Norman will discuss planning during the day and make the new group the topic of his lunch time talk. Some specialized electrical instruments and tools will be required and Norman will outline all this in January 2010. IMPORTANT: -No mains operated clocks will be included, it is illegal for unlicensed people to work on mains operated clocks or equipment.

I take this opportunity to wish you the compliments of the Christmas season and look forward to seeing you at the Christmas Lunch.

Paul Hutchinson - Secretary.





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#### NAWCC Chapter 104 Minutes of General Meeting Chermside Library 4 October August 2009.

Present: 26 members as per attendance book. Apologies: 10 as per attendance book.

Opening: Vice President Jeff Dyer opened the meeting 1.05 pm, and welcomed Ken Durston guests; Lia and Eddy Penning.

Presentations: Tony Manton gave a presentation on the history and progress of the American Waltham Watch Company, from the founding in 1850 in Roxbury, Mass. by David Davis Aaron Dennison and Mr. Howard through various name changes and its final demise in 1957 when the American assets were bought by Dextra Corp who failed in 1983. In 1954 Waltham had moved part of its operations to Switzerland that are now owned by a Japanese businessman. Many members had brought in their Waltham pocket and wrist watches and there were over

60 pieces on show. New member Gary Dutton showed over a dozen fob watches in excellent condition, Colin Hill, Mervyn Whittenbury and Bill Meeken also showed some nice examples of Waltham watches.

Jeff Dyer then gave some information to members and showed photographs of some clocks that were for sale privately at the Gold Coast.

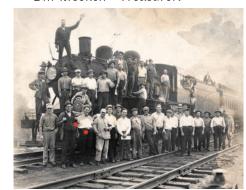
Afternoon Tea and Mart from 1.45 2.15pm.

Show and Tell: Members had been requested to bring their miniatures and this was an overwhelming success. There was a large variety from sub-miniature to miniatures in all shapes and forms, too many to mention. Colin Hill showed a tortoise shell carriage clock, an Hebdomas Carriage clock as well as an Ansonia and Japy miniature. He also showed a watch with an unusual 1 second escapement and a dial with 500 graduations. Alan Hazelton showed a collection of Franklin Mint miniatures in a display case

as well as various other interesting miniatures like his Frodsham and French Silk suspension. Other displays by Ian Aitchison, Bill Meeken, Malcolm Enright & Mike Ward showed many fine small clocks.

Ken Durston showed a couple of mystery items one being half of a double sided clock as well as a mechanism that might have had some military purpose or could have been gramophone motor. Ron Walker showed a home made oil sink cleaner.

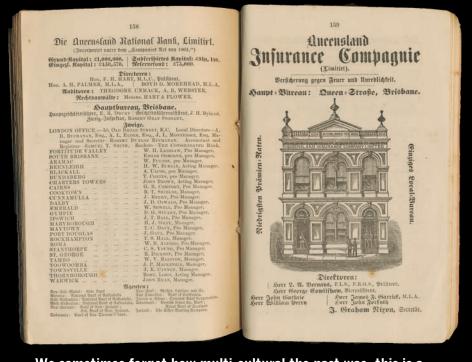
Bill Meeken - Treasurer.



Go to: http://en.wikipedia.org/wiki/ Waltham\_Watch\_Company



PAGE 15



We sometimes forget how multi-cultural the past was, this is a QLD/NSW German language calendar for 1880 in the Editor's ephemera collection. 172 pages of info, adverts and essential information for new settlers, printed and bound in the colony. We are looking for early local clocks and watches in member's collections to augment the Pine Rivers display, contact Bill Meeken < menengai@tpg.com.au> or phone 07 3882 1213.

This piece is lifted directly from the Designboom® daily coverage web site - Maarten Baas' real time clock with 'movie as movement' at Milan Design Week 09.

Maarten Baas signs his 3 movies speaking of time passing, shot in the Netherlands between February and March 2009. He chooses the cinema language to re-shape a clock collection composed of three models. from the old style analog-alarm to the digital time counter, Baas animates the clocks with a theatre mechanism with true and living lancets by involving actors to sign the time. 3D prototypes are shown together with the movies and work as rough description for the new Baas models of time counters. The clock videos will be sold on an external hard drive (HD quality) which can be played on any screen. All movies will be numbered and signed by Maarten Baas (prices on request).

'The man in a clock' A man is filmed while he draws the hands of a clock from the inside of the interface. This film is integrated in the housing of a traditional floor standing grandfather clock. The man is seen standing in the clock as he keeps on drawing the current time. Open a browser and go to the url in column 3:



## Clock/watch display at Pine Rivers Heritage Museum.

The Chapter has been invited by the curator of the Pine Rivers Heritage Museum to organize a display in the Museum during the months of November and December 2010. This will be a great opportunity for members to display some of their clocks and watches and will give our Chapter great exposure in the district. Early in the New year there will be discussions with the curator to establish what form this exhibition will take and what type of clocks and watches will be required for the display. Further details will be announced once they come to hand but it is expected that the display will focus on the type of clocks that were in use in the district in the early days. As the purpose of the Museum is not only to display items but fulfill an educational role some emphasis will likely be placed on items of interest to children. If any member would like to have some input in the above and /or display some of their clocks and watches please contact Bill Meeken, so that a small committee can be formed to organize this exhibit.



http://www.designboom.com/weblog/cat/8/view/5837/maarten-baas-real-time-clock-movies-at-milan-design-week-09.html