

# “The Carriage Way”



## International Carriage Clock Chapter #195 Founded 2013

The National Association of Watch and Clock Collectors

**Volume 2013 No.1**



*Series 1 Carriage Clock. Signed: “Paul Garnier, Horologer Du Roi”*

## President's Report



### Stan Boyatzis

Welcome to the new international Carriage Clock Chapter 195. This is the first specialist Chapter devoted solely to carriage clocks. How time flies. It is now almost twelve months since the Carriage Clock Symposium in Minneapolis when it was proposed to establish a Carriage Clock Chapter. This proposal was very well received with over fifty expressions of interest. When the Chapter was granted its charter at the recent National at Dayton there were over one hundred interested members. More than forty members were signed up at the National thanks to the efforts of Ken Hogwood.

Chapter 195 is an internet chapter devoted to the dissemination of knowledge on carriage clocks. Initially, our means of communication will be via the internet through a newsletter and eventually via a website. With the assistance of Marcus Harris from National headquarters, we are exploring the establishment of a website.

Members of the Executive Committee are:

Stan Boyatzis: President (Aust.) Email: [carriageclocks@optusnet.com.au](mailto:carriageclocks@optusnet.com.au)

Keith Potter: Vice President (Aust.)

Doug Minty: Secretary (Aust.) Email: [dminty@optusnet.com.au](mailto:dminty@optusnet.com.au)

Ken Hogwood: Director (USA).

John Hamilton: Director (Aust).

Carl Sona: Director (Aust).

Email: [carriageclock195@hotmail.com](mailto:carriageclock195@hotmail.com).

The Executive Committee initially appears to be weighted towards Australian members, but this was for ease of setting up the chapter. We would be delighted to include interested overseas members. With use of Skype conferencing distance now does not appear to be a problem.

The committee proposes to produce a newsletter every quarter. The newsletter, initially, will be six to eight pages and will include the President's report, a feature article, Q & A and 'Around the Auctions'. In this newsletter Ken Hogwood has written an excellent article on Paul Garnier and his carriage clocks. If you have any additional information on Garnier's clocks Ken would love to hear from you. Please remember that this is your Chapter and we would like everyone to contribute and share information.

## **A WELCOME TO OUR CHAPTER 195 FROM THE SECRETARY**

We are now up and rolling and we hope, as we grow, that we will be able to entertain, educate and encourage you with your hobby of carriage clock collecting. This email delivered Chapter newsletter has created some interesting problems, but we believe we can overcome them. We hope to have good quality articles supported by coloured and informative photos. We will be having repair tips, a search for information section and, as time progresses, a Mart section. To make this exchange of information work, we need your help and input, so if you have a question relating to carriage clocks we would appreciate you contacting the Secretary and we will include your story in the next issue of The Carriageway.

The story does not have to be highly technical or highly complicated, but maybe a simple repair tip or how you started with your first carriage clock. As a specialty clock, they have both clock and watch type problems. We hope we can expand everybody's knowledge on carriage clocks. We also hope that some of you will put your hands up to hold a physical meeting of the Carriage Clock Chapter members in your local area.

If you have the opportunity to advertise Chapter 195 in your local Chapter magazine, please do so. And if you have a friend who may be interested in joining the Chapter, please send them the newsletter as it is open to every member of NAWCC.

Doug Minty Secretary

## PAUL GARNIER 1801 – 1869

Many articles have been written about Paul Garnier, the founder of semi- production carriage clocks, over the years, but most of the information known about Paul Garnier must be attributed to Charles Allix, Peter Bonnert, and their book on carriage clocks titled “Carriage Clocks, Their History and Development” published in 1974.

We must recognize that since 1974 many more Garnier clocks have been discovered, and each new clock discovered sheds new information about the number of clocks and styles produced by Paul Garnier. So, it is good to review Charles Allix’s book, Derek Roberts’s book, and other publications by Tom Wotruba, Doug Adams, Doug Cowan, Joseph Fanelli and others.

This article will review much information previously published by the above mentioned persons, but the pictures and some data are new discoveries. Hopefully this article and our new on-line NAWCC Carriage Clock Chapter will cause members to share pictures and details of clocks produced by Paul Garnier not previously published.

Paul Garnier is recognized as the founder of the semi-mass produced carriage clock industry in Paris, France. He made it possible for people in Europe first, and then the world, to own a carriage clock as economically as a medium priced pendulum mantle or wall clock with his plain but high-quality carriage clock style I, Circa 1830. While he is best known for his carriage clocks, he also made pendule portative clocks, some with the round plate design and some with the rectangular design, and almost all had the two-plane chaff-cutter escapement patented in 1830, for which he is so well known. He also is known to have made a few chronometers.



*Series 1 SN# 1050 Carriage Clock Signed:  
“Paul Garnier, Horologer Du Roi” 4 9/16” High*

The invention of his 2 plane chaff-cutter escapement, a constant force, frictional-rest

escapement which could be mass produced by machine with great accuracy, eliminated many hours of hand cutting and filing as had been necessary with other clock makers in Europe at that time. This made it possible to mass produce his carriage clocks and pendule portative clocks.

He presented his chaff-cutter escapement, in a clock of his making (not a carriage clock), in 1826 to L'Academic des Sciences (Academy of Sciences of France) for their approval, but was not awarded a Brevete` for 4 more years.

His "chaff-cutter" escapement differed enough from other frictional rest escapements previously invented by De Vaufre, Enderlin and Sully, for him to be awarded a Brevete` (French for Patent) on September 30, 1830 for its invention.

During the four years of waiting for the Brevete` to be awarded, he produced hundreds, if not thousands of portative clocks and carriage clocks with his chaff-cutter escapement. It is said he produced and sold more carriage clocks than had been made and sold by all other French and English clock makers combined!

It should be noted while Garnier had a clock making factory of sorts, it is believed he purchased many "blancs-roulants" from Pons of St.-Nicolas- d'Aliermont. Pons was noted for making the best roulants or "greys" from about 1810 thru the 1850's, and they were used by several Paris clockmakers during this period.

Let's look at the early life of Paul Garnier. He was born in November 1801 in the town of Epinal in the Vosges area of eastern France. His birth records show his name to be Jean-Paul Garnier. His father was an organist and died when Paul was only 10 years old. He then lived with this grandfather, who was also as organist. Apparently organists in France were not well paid, so it was necessary for Paul to leave school and seek employment, first as a laborer for a printer, and then later as an apprentice to a locksmith.

His introduction to horology came while apprenticing to a master clock maker in Luxeuil, France. At the age of 19 he moved to Paris to work for the "House of Le`Pine" for the next 5 years. During this period he attended the clock making school of Antide Janvier.

Apparently Paul Garnier had great respect for Antide Janvier. After setting up his own clock making business on Rue Taibout in Paris, he wrote a letter to Janier asking permission to sign his clocks with the signature "El`eve de Janvier", which means "Student of Janvier". It is known at least 3 clocks exist bearing this marking on the back plate. A return letter dated February 14<sup>th</sup>, 1827 from Janvier stated Paul had been a good student and he would be proud for Garnier to mark his clocks "El`eve de Janvier".

It is not known what prompted Garnier's interest in medical devices, but he displayed a medical thermometer with a bi-metallic strip in 1826 and a sphygmometer, a device to follow blood flow in the human body, in 1829 at the "Academic des Sciences" annual exhibition. It is not known if a breveté` was given for any of his medical devices, but in about 1830 his inventive efforts turned back to horology, as no other medical devices are mentioned after this date.

In 1827 he won 2 silver medals for 2 constant force escapement regulators. At that time, the term “regulator” was applied to 4 sided glass clocks and glass domes. Also, for the first time he displayed a carriage clock.

In the 1834 National Exhibition, he displayed several carriage clocks as well as a micrometer, which measured to 1/3000 of a millimeter. This tool no doubt was invented to measure hair springs and other extremely small clock parts in his now clock making mini factory.

At this time it should be noted, prior to his production of the Series I rectangular plate movements he made several exhibition mounted portative clocks and carriage clocks using round e`bauches (round plate movements) which possibly were bought as “greys” (unfinished movement) and fitted with his “chaff-cutter escapement” which would become a trade mark feature in his carriage clocks.

Derek Roberts’ book, “Carriage and Other Traveling Clocks”, suggest all of these round plate clocks were produced with serial numbers just below 200, like my Pendule Portative SN #164.



*Pendule Portative SN#164 Retailer's*

*Name: "Guyerder Aine-Paris"*

*"P. G. Brevete" (under the bell)*

However, I also own a rosewood cased carriage clock with the same round plate movement, which winds from the front. This clock goes against the theory they were all serial numbered below 200. My Rosewood cased carriage clock is clearly marked SN#2073, and is signed Paul Garnier Her Du ROI, Paris, and it is a carriage clock, a true “Pendule de Voyage”.



*Series Unknown SN# 2073 Carriage Clock*

*Signed: “Paul Garnier, Her Du Roi Paris”*

*Rosewood Case. Same movement as Portative SN#164 5 5/8” high; 4” wide; 3 1/2” deep.*

Paul Garnier numbered his movements only, not the cases, and it is assumed these numbers were placed on the movement at the time of manufacture, not at the time of sale, as was practiced by some other one-at-a-time carriage clock makers. By this logic we assume the lower the serial number, the earlier the clock was made.

When considering this fact, my rosewood case carriage clock, SN#2073 would have been made much later, possibly in the 1840’s, not the 1827 to early 1830’s. This little mystery will remain a mystery until someone can do more research.

Before we leave the subject of dating Garnier’s clocks by serial number, I have one more anomaly. I purchased a Paul Garnier carriage clock, Serial No. 2119.

The case size is similar to a Series II; however, the gear arrangement is slightly different than my Series II, Serial No. 2499. The case is plain, but the face is white porcelain with blue numerals and gold hands, which gives a striking appearance to the clock. It is a time and strike with 1/2 hour repeat. It is 6 5/8” high.

Now for the surprise. The movement and case are both marked Serial No. 2119. The movement and the dial are marked “Paul Garnier, Her Du Roi Paris”. It has the 2 plane chaff-cutter escapement, but nowhere does it have the “P. G. Brevete” found on even the earliest Paul Garnier clocks I own. Could this clock have been made before he received his Brevete` on September 30, 1830?



*Series II? SN#2119 Carriage Clock*

*Signed: "Paul Garnier, Her Du Roi Paris"*

*Plain, gold plated brass case.*

*Dial is white porcelain with blue numerals & gold hands.*

*Height: 6 5/8"*

Paul Garnier marked his clocks with several signatures or markings. These are the markings known to date. Also, in his early career, he marked his clocks and movements with the names of several prestigious clock retailers. One of the retailers', Guyerdet Arne` A Paris, is marked on the back plate of my exposition style pendule portative, SN #164, and under the bell is PG Brevete`, which assures us Garnier did indeed make this clock.

It is known Garnier produced this same "exposition style" pendule portative earlier, and most likely this is the style clock he used to exhibit his "2 plane chaff- cutter" escapement to the "Esposition de L` Industrie of 1827", for which he received a silver medal.

Other retailer's names found on Garnier clocks are "Dent" and "Leroy et Fils", and possibly there are others. If you have a Garnier with the famous P.G.Brevete` mark along with another retailer's name, please let it be known to our new on-line Carriage Clock Chapter.

Some of the signatures found on Paul Garnier's clocks are:

- Paul Garnier Ele`ve de Janvier (student of Antide Janvier)
- Paul Garnier Horologer du Roi: (clockmaker to the King)
- Paul Garnier HGER DU ROI (clockmaker to the King)
- Paul Garnier H. DU ROI A Paris (clockmaker to the King)
- Paul Garnier Her Du Roi Paris (clockmaker to the King)
- Paul Garnier HER DU ROI (clockmaker to the King)
- Paul Garnier HR DU ROI (clockmaker to the King)
- Paul Garnier Horologer de La Marine (clockmaker to the Navy)
- Paul Garner HER DE LA MARINE A Paris (used after the French revolution)
- Paul Garner HER DE LA MARINE A Paris (used after the French revolution)

- PAUL GARNIER (his earliest known signature, and used later by his son Paul Garnier II after his father's death)
- Paul Garnier Ing`eur M Cien is found only on machines and tools he made.

Exactly when some of these signatures were used is not certain. To date the earliest known use of HER DE LA MARINE A Paris is on clock SN#1971, a series III, which would indicate post revolution 1848, but my series II, serial number 2499 is signed Paul Garnier HER DU ROI Paris, which would indicate pre-revolution. This clock is in a one-piece "fire guilt gold" case made by L. Lange. This does not follow the serial numbering theory of "the lower the serial number, the earlier it was made".



*Series II SN# 2499 Carriage Clock*

*Signed: "Paul Garnier, Her Du Roi Paris"*

*6 15/16" high. Case made by L. Lange, "fire gilt" gold case*

The "fire guilt gold" process was outlawed in France in 1850, so this clock was certainly made before 1850. This eliminates the possibility this clock could have been made in the third republic period 1870 and later. A possible explanation could be that this, and other high quality clocks, which were cased by outside case makers, such as "L. Lange" were made for consignment to shops in London or other cities outside of France. The French Revolution was not supported by England, Spain, Russia and some other countries which still had a monarchy, and the HER DU ROI title would not have been offensive to them. Indeed, it would have been impressive to those outside of France who could afford these high quality clocks.

After Paul Garnier's death in 1869, his son, Paul Garnier II carried on the business. It is uncertain if Paul Garnier II was a clockmaker, or employed clockmakers and he only ran the shop and was a retailer, as no clocks have been found bearing the signature "Paul Garnier II". Those known to have been made after "seniors" death are marked simply "Paul Garnier". Paul Garnier II died in 1917.

Paul Garnier received many honors as a horologer. Some of his accomplishments are as follows:

- Founding member of the Socié`te` des Horologers of France.
- Received silver medals Paris Exhibition of 1827, 1834 and 1839.
- Awarded a 5 year Brevete` in 1830 for his 2-plane chaff-cutter escapement.
- Received gold medals at the 1844 and 1849 Paris Exhibition.
- Awarded a “Medal of Honour” at the 1855 Paris Exhibition and again in 1860.
- He was given the title “Chevalier de la Legion d’Honour”, one of the highest honours awarded to a civilian commoner, in acknowledgement of his public service.

As carriage clock collectors, we acknowledge Abraham-Louis Breguet as the inventor of carriage clocks. However, Paul Garnier is without doubt the second most important person in the development of carriage clocks.

As a carriage clock collector, I treasure the carriage clocks made by Paul Garnier as the best of my collection.

If you have evidence that conflicts with my facts, or confirms them, please respond with an article to our new Chapter 195 newsletter.

Ken Hogwood, NAWCC Member, Chapters 195, 24, 42, 154 & 194

Acknowledgements:

- “Carriage Clocks, Their History and Development”, by Charles Allix and Peter Bonnert, published 1974.
- “Carriage and Other Traveling Clocks”, by Derek Roberts, published 1993
- “Paul Garnier, a Clever and Creative Carriage Clock Maker”, by Dr. Tom Wotruba and Doug Adams, published in Bulletin #371 December 2007.

## **Who are the members on the Executive Committee?**

### **Stan Boyatzis**

#### **President**

I am currently working as a full time periodontist in private practice in Sydney.

I have been a member of Chapter 72 (First Australian Chapter) since moving to Sydney in 1985, and on the Executive committee from 1994 to 2007.

Utilising my knowledge of dental materials I have researched and used various methods to replace missing parts on clock castings. I have lectured widely on this topic to Chapter 72 and to other Australian chapters.

I bought my first carriage clock while working in the UK, a time only time piece in a plain Cornish case. My main interest now is collecting rare and unusual carriage clocks by well known makers. I research carriage clocks and their values by closely monitoring the sale of these clocks at auctions.

My other area of interest is the repair of damaged porcelain dials and panels using modern dental materials.

### **Carl Sona**

#### **Vice President**

Although I have always had an interest in clocks and watches, my real involvement began in 1974 when I discovered NAWCC and went to my first clock exhibition as a new member of First Australian Chapter 72. My early collection ambitions embraced Vienna regulators and carriage clocks but neither developed beyond single unpretentious examples and a deep ongoing interest. Over many years my collection has encompassed high quality Swiss alarm and desk clocks of the 20<sup>th</sup> century. I regard these as modern “carriage clocks”.

My working background began in the Australian aircraft industry (1954) and I retired in 2000 after 33 years with the CSIRO. My final 16 years were spent as a specialist in high precision computer controlled coordinate measurement with the National Measurement Laboratory. After retirement I joined a fellow Chapter member and completed the formal watchmaking course at Sydney TAFE in 2004.

Since joining Chapter 72 I have held every committee position except Treasurer spread over a 32 year period. I was awarded a NAWCC Fellowship in 2001. I look forward to encouraging the growth and development of Chapter 195.

Carl Sona FNAWCC

**Douglas Minty**  
**Secretary**

Doug is a master watchmaker, having been in the horological trade for over 50.

He is a Past Director, Silver Star Fellow and Life Member of the National Association of Watch & Clock Collectors. Doug is the current President of Chapter 72.

In 2009 Doug was awarded the Order of Australia Medal for services to Horology.

Doug runs a restoration workshop, specialising in antique clocks and watches, and large public tower clocks.

He has lectured internationally and in Australia on a variety of horological subjects.

Doug taught Clock Specialists Skills at Sydney TAFE for 20 years. He is Past President of the professional society of Watchmakers.

**Ken Hogwood**  
**Director**

My wife, Beauton, and I have homes in Greenback, Tennessee & Port Orange, Florida, USA

I am a retired businessman, having owned and operated three successful businesses.

My antique clock collecting started in 1975, but I did not join the NAWCC until 1999 after I “retired” to Florida and joined Daytona Beach Chapter 154. My interest in the NAWCC and Regional activities has become much greater since I moved back to East Tennessee and joined Tennessee Valley Chapter 42 and Atlanta Chapter 24, which are very active chapters. I recently joined The British Horology Chapter.

On the National level, I served as a 2012 Ward Francillon Time Symposium lecturer on American Carriage clocks. Also, I am the Vice Chairman for the 2015 NAWCC National Convention to be held in Chattanooga, Tennessee.

My main interest in collecting is carriage clocks and research books. I am an avid horological researcher and enjoy sharing my knowledge with others in lectures, programs and articles. I enjoy doing research using the NAWCC Library and bulletins, my own personal horological library, & the internet. From my research, I have contributed articles published in the Watch & Clock Bulletin. I also enjoy restoring and repairing clocks, especially carriage clocks.

My other hobbies are working and creating Cryptogram Puzzles and sport clay shooting.

Ken Hogwood

**JOHN HAMILTON**  
**Director**

A member of NAWCC Chapter 122, Melbourne for 29 years I became Secretary/Treasurer of the Chapter in 1994. I was born and raised in Singleton, a rural town in the Hunter River Valley of New South Wales, Australia. My father, a cattle grazer, who was also an extremely conscientious self-taught amateur horological student, provided me with enviable childhood opportunities to absorb his enthusiasm for collecting and restoring mechanical clocks and watches.

After graduating Bachelor of Science (Hons.) in Geology, in 1956, I was employed as a field geologist by a petroleum exploration company, then operating in Portuguese Timor (now Timor-Leste). Later, I returned to academia, where I gained my Doctorate of Philosophy for researches in the field of clay minerals. Then, in 1970, I started working on problems related to thermal processing of iron ore products. Some 20 years later, I retired from CSIRO.

Following the death of my father in 1970, and the inheriting of his collections of clocks, watches and tools, I began, slowly, to “re-engage” with my horological past. I joined NAWCC Chapter 122, Melbourne, in 1984. I was attracted into the world of Carriage Clocks, where, now, I have dwelt happily for some 25 years, applying myself to the study of their manufacturing history, and seeking to gain a sufficient understanding of all the complexities of their movements and escapements, to directly assist me in my collecting and restoration activities.

**Keith Potter**  
**Director**

Educated Carlingford District Rural School, then Macquarie boys High School.

Trade course in Diesel mechanics, working for a company that manufactured and repaired electrical generating equipment. Trade Course in Fitting and Machining while working for a film production company. Doing maintenance on equipment used in production and post-production of motion pictures. Then spent 30 years as an Engineering conservator at the Powerhouse Museum in Sydney before retiring in 2008. Along the way doing Certificate courses in Corrosion control and Electron Microscopy.

Whilst at the Powerhouse Museum I was responsible for maintenance of all working equipment at Sydney observatory, this included the telescopes and all Clocks

Interest in mechanical things and how they work started when I was 8 years old. I have been collecting mechanical things since 1960, starting with motor cars, mechanical music production and clocks and

watches. My collection of clocks is varied I collect what I like. My interest is in fault finding and problem solving in Clocks of all Kinds.

### **FUTURE IDEAS**

If you have a picture or an article about Carriage Clocks, please send them in.

If you want any questions answered, or would like to run a free advertisement, please use your Newsletter to get your answers.

If you have any repair inquiries, send them in and we will publish them and encourage people to give you a variety of answers as there is always more than one way to skin a cat.

Please feel free to give our email address and copies of this Carriage Way Newsletter to anyone you think may be interested in joining the Chapter.

If you publish your own Chapter newsletter, please put an advertisement for Chapter #195 in it and you are more than welcome to use any of the information we have published.

This email is large because we wanted to let you know who is behind the Chapter, but in the future the Carriage Way will be limited to 6 pages.

**IN THIS VERY BUSY WORLD THE  
ONLY WAY TO SAVE TIME  
IS TO COLLECT CARRIAGE CLOCKS.**